

**The Complementation of Averse in 19<sup>th</sup> and 20<sup>th</sup> Century  
American English**

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Tässä pro gradu –tutkielmassa tarkastellaan adjektiivin *averse* komplementaatiota amerikanenglannissa 1800-luvun alusta 1900-luvun loppuun. Tutkimuksen tavoitteena on korpusmateriaalia käyttäen kartoittaa *averse*-adjektiivin komplementtivariantteja ja muutoksia niiden esiintyvyydessä tutkimuksen kattamalla aikavälillä. Tavoitteena on myös etsiä alan teorioista selityksiä mahdollisille muutoksille komplementtien käytössä.

Tutkimuksen aineisto on kerätty elektronisesta *Corpus of Historical American English* –korpuksesta. Analyysia varten aineisto on jaettu neljään ajanjaksoon, joista kukin käsittää kolme vuosikymmentä ja joiden jokaisen väliin jää kaksikymmentä vuotta. *Averse*-adjektiivin esiintymistä näinä neljänä ajanjaksona verrataan toisiinsa, jotta voidaan tunnistaa diakronisia muutoksia adjektiivin komplementaatiossa.

Tutkielman teoriaosuudessa esitellään ensimmäiseksi komplementaatioon liittyviä käsitteitä ja komplementtivarianttien vaihtelua mahdollisesti selittäviä teorioita. Näistä keskeisin on Rohdenburgin Great Complement Shift –teoria, jossa esitetään englannin kielen verbien ja adjektiivien komplementaatiossa tapahtuneita muutoksia lähihistoriassa. Toiseksi teoriaosuudessa esitellään korpuslingvistiikkaan liittyviä teorioita sekä tarkkuuden ja saannin käsitteitä. Pääteoriaosuuden jälkeen tutkielmassa tutustutaan siihen, kuinka *averse*-adjektiivia on käsitelty aikaisemmassa kirjallisuudessa, etenkin kielioppiteoksissa ja sanakirjoissa.

Analyysiosassa aineistoa käsitellään jaettuna edellä mainittuihin neljään ajanjaksoon. Analyysin tulokset osoittavat, että *averse*-adjektiivin komplementaatio on muuttunut käsitellyllä aikavälillä. Mahdollisten komplementtivarianttien määrä on laskenut tultaessa 1900-luvun loppuun. Preposition *from* käyttö *averse*-adjektiivin komplementeissa on vähentynyt ja lähes tulkoon kadonnut käsitellyllä aikavälillä. Lisäksi prepositio *to* + verbin infinitiivi –komplementtivariantti on kadonnut, kun taas variantit, joissa verbi on *-ing*-muodossa, ovat yleistyneet merkittävästi. 1900-luvulle tultaessa kaikki variantit ovat marginalisoituneet lukuun ottamatta kahta: prepositio *to* + *-ing*-muotoinen verbi –variantti ja prepositio *to* + substantiivilauseke –variantti ovat molemmat yhä yleisessä käytössä. Tulokset ovat samansuuntaisia kuin mitä Great Complement Shift –teoria esittelee. Tutkimuksessa kävi myös ilmi, että ns. nollakomplementtien tapauksessa adjektiivin komplementti jää implisiittiseksi, mutta sen merkitys ei ole tyhjä vaan on pääteltävissä lausetta ympäröivästä kontekstista.

Avainsanat: adjektiivi, *averse*, komplementaatio, korpus, korpuslingvistiikka

## Contents

<b>1. Introduction.....</b>	<b>1</b>
<b>2. Relevant Theories.....</b>	<b>3</b>
<b>2.1. Theories on Complementation .....</b>	<b>3</b>
2.1.1. The Predicate – Argument Structure .....	3
2.1.2. Implicit Arguments .....	4
2.1.3. The Theta Roles and the Theta Criterion.....	6
2.1.4. Control and Raising .....	8
2.1.5. Differentiating Control and Raising in Practice.....	11
2.1.6. The Complement – Adjunct Distinction.....	12
2.1.7. The Great Complement Shift and the History of the -ing Form .....	14
2.1.8. The Complexity Principle.....	16
2.1.9. Extractions .....	18
2.1.10. Horror Aequi .....	19
<b>2.2. Theories on Corpora .....</b>	<b>20</b>
2.2.1. Corpus Linguistics .....	20
2.2.2. Precision and Recall .....	20
2.2.3. Normalized Frequencies .....	22
<b>3. Averse in Other Literature and Dictionaries .....</b>	<b>24</b>
<b>3.1. Grammars .....</b>	<b>24</b>
3.1.1. The Cambridge Grammar of the English Language .....	24
3.1.2. A Comprehensive Grammar of the English Language .....	25
<b>3.2. Dictionaries .....</b>	<b>25</b>
3.2.1. The Oxford English Dictionary .....	26
3.2.2. The General Dictionaries .....	29
3.2.3. The Collegiate Dictionaries .....	30
<b>3.3. Conclusions on Dictionaries.....</b>	<b>30</b>
<b>4. Analysis .....</b>	<b>32</b>
<b>4.1. The Corpus of Historical American English .....</b>	<b>32</b>
<b>4.2. The Analysis of Averse .....</b>	<b>32</b>
4.2.1. Analysis of <i>Averse</i> from 1820 to 1849 .....	33
4.2.2. Analysis of <i>Averse</i> from 1870 to 1899 .....	44

4.2.3.	Analysis of <i>Averse</i> from 1920 to 1949 .....	52
4.2.4.	Analysis of <i>Averse</i> from 1970 to 1999 .....	57
<b>4.3.</b>	<b>Summary of Findings and Discussion.....</b>	<b>60</b>
<b>5.</b>	<b>Conclusion .....</b>	<b>63</b>
<b>6.</b>	<b>Bibliography .....</b>	<b>65</b>

# 1. Introduction

In this thesis I investigate the complementation of the adjective *averse* in American English from the beginning of the 19<sup>th</sup> century to the last years of the 20<sup>th</sup> century. According to *The Oxford English Dictionary*, the adjective *averse* means “turned away in mind or feeling; actuated by repugnance; habitually opposed, disinclined” (OED, s.v. *averse*, adj. sense 4a). Complementation, on the other hand, has to do with complements: the elements, excluding the verb, that are needed to render a sentence grammatical – to complete it (Leech & Svartvik 2002, 271).

My aim is to find out what kind of complements the adjective *averse* can take and with what kind of frequencies certain complements appear with *averse*. I also investigate if there have been any historical changes in the use of complements in regards to *averse*, and what those changes might have been.

For my primary data I use *The Corpus of Historical American English* as my source, as it is the most sizable corpus available that includes American English also from before the 20th century. As the adjective *averse* is overall quite rarely used, the size of the corpus ensures that there will be enough relevant tokens for the research I am about to conduct. The dataset needs to be large to make it possible to find meaningful differences and similarities between complementation patterns both within a certain time period and over a longer span of time.

Specifically I examine the corpus data in order to identify all the different complementation patterns that have occurred with *averse* within the time period of this study. To help me in categorizing *averse* and its complementation patterns, I take a look at how certain grammars and American dictionaries describe and treat the adjective. I present these dictionaries and what they have to say about *averse* in a later chapter.

The complementation patterns found in the corpus will be analyzed for their frequency, and the patterns and the differences between the patterns will be compared and analyzed. The frequencies of the patterns will be compared to each other in different time periods in the 19th and 20th century to find any diachronic change in the complementation of *averse*.

Complementation patterns differ between different predicates. The study of these patterns helps us identify the changes that have taken place in the English language. Information gathered concerning different predicates can be used, among other things, to help in second-language teaching of

English.

Complementation has been studied widely in our field, with many different verbs and adjectives, but the complementation of the adjective *averse* specifically has not been researched before. This study aims to add to the body of knowledge surrounding complementation by providing new information about this particular adjective: its historical usage and how and when its complementation has changed.

This is a quantitative study, focusing mainly on the frequencies of use for the complementation patterns found to occur with *averse*. The aim of this study is to identify changes in the complementation of *averse* over the period of 1820 to 1999 and to investigate whether the possible changes during this timespan correlate with wider changes that have happened within English predicate complementation. Regarding this I examine whether there is evidence that the complementation of *averse* has changed with the Great Complement Shift, as has the complementation of many other predicates.

## 2. Relevant Theories

In this chapter I introduce several theories relevant to complementation in general, and those specifically relating to the complementation of *averse*. I also present some theories describing the use of corpora in research.

### 2.1. Theories on Complementation

Leech and Svartvik (2002, 271) give a general definition of *complement* as "something that is necessary to complete a grammatical construction". In determining how many and what kinds of complements a grammatical construction requires, Herbst et al. (2004, xxiv) consider the position of the predicate to be central. According to them it is the verb that determines "how many other elements have to occur in order to form a grammatical sentence" (ibid.). These other elements, then, are called complements (ibid.). It is the subject, the predicate and the complements that together form the structural core, or "nucleus", of the clause (Huddleston 1984, 177).

Complementation concerns the use and patterning of complements, and the rules governing this. The theories presented in this section and its subsections describe the principles governing complementation and different phenomena that affect it.

#### 2.1.1. The Predicate – Argument Structure

By describing the argument structure of a sentence, the logical relationships between the predicate (the verb or adjective at the core of a sentence) and the arguments that it requires can be made explicit.

The predicate is traditionally understood as the central verb of a clause, but Cook (1998, 8) argues that this predicate can also be an adjective. This view is based on Lakoff's (1966, 15) work, in which it is pointed out that adjectives and verbs share a "large number of lexical properties" and behave identically in a number of grammatical constructions. This view that adjectives, too, can be predicates is adopted also in this thesis, and the phrase *be averse* as a whole is here treated as a predicate.

Arguments are, according to Cook (1998, 9), "elements required by the predicate", which then correspond to different clausal elements, such as subjects and complements (Cook 1998, 9). Haegeman (1991, 36), on the other hand, describes arguments as "the participants minimally involved in the activity or state expressed by the predicate."

Consider the following example from Haegeman (1991, 35):

(1) Maigret imitates Poirot.

Here, *imitates* takes two arguments: *Maigret* and *Poirot*. The predicate *imitates* needs two participants to complete its meaning: someone who imitates (here *Maigret*) and someone who is imitated (here *Poirot*) (Haegeman 1991, 35). Without one (in (2) and (3), below) or both of these arguments (in (4)), the meaning of the predicate would remain incomplete, and the sentence would be ungrammatical:

(2) \*Imitates Poirot.

(3) \*Maigret imitates.

(4) \*Imitates.

The number of arguments required is dependent on the predicate. *Imitate* is a transitive verb: it takes two arguments, the subject and the object (Haegeman 1991, 33). Intransitive verbs, which do not have an object, only take one argument, the subject (ibid.). Ditransitive verbs require two objects and therefore take three arguments: the two objects and one subject (ibid.). I present my own example of an intransitive verb in (5) and my example of a ditransitive verb in (6):

(5) I sleep.

(6) I will give you the book.

In (5) here the verb *sleep* has no object, and is thus an intransitive verb. *Give* in (6), on the other hand, has two objects, *you* and *the book*, marking *give* here as a ditransitive verb.

### 2.1.2. Implicit Arguments

In some cases arguments can also be left implicit within the sentence (examples from Haegeman 1991, 38):

(7) Hercule bought Jane a detective story.

(8) Hercule bought a detective story.

In (8) the third argument, that is, who the detective story was bought for, is implied, not explicitly stated in the sentence (Haegeman 1991, 38). The action of buying still needs three arguments to be completed (Haegeman 1991, 38): someone buying, something that is bought, and someone who



receives what is bought. In (7) all these three arguments are explicitly stated in the sentence: *Hercule* buys, *a detective story* is bought, and *Jane* receives what is bought. Similarly, (8) also has three arguments, but the receiver is left implicit, and the sentence will be understood to mean that Hercule has bought the detective story for himself.

According to Haegeman (1991, 39), it is more often possible to leave the arguments of adjective predicates implicit (such as in (9)) than it is to leave the arguments of verb predicates implicit (such as in (10)) and still have a grammatical sentence:

(9) Poirot is envious.

(10) \*Poirot envies.

In (9) it is still implicitly stated that Poirot is envious *of someone*, but the sentence is grammatical even without an explicit argument in the object position to clarify who that someone is. In (10), however, the sentence is ungrammatical, as the verb predicate requires the object of envy to be explicitly stated. With some predicates, and more often with adjective predicates, it is then possible to omit complements and leave the arguments attached to these complements implicit, while with other predicates it is not.

An explanation for omitted complements, and differences between predicates regarding them, is discussed by Fillmore (1986, 96-98). According to Fillmore (1986, 98) whether a complement can be omitted, that is to say, whether an argument attached to that omitted complement can be left implicit, is dependent on the predicate. Some predicates allow either, in Fillmore's terms, indefinite null complements or definite null complements (Fillmore 1986, 96). Indefinite null complements are omitted complements that can have referents that are unknown or unspecified (*ibid.*). Definite null complements, on the other hand, need referents that are given in the context of the discourse (*ibid.*). For example, the predicate *eat* allows an indefinite null complement:

(11) You ate.

In (11) it is implied that you ate *something*, but the sentence makes sense even if the *something* is not further specified (Fillmore 1986, 96). In contrast, the definite null complement needs to be interpretable from context:

(12) You found out.

In (12) the predicate *find out* only allows definite null complements, and their referents

cannot be unknown or "a matter of indifference" (Fillmore 1986, 96). The preceding context of the discourse must supply a known referent for the omitted complement, which is then referred to implicitly.

The difference between these null complements can be demonstrated by a test proposed by Fillmore (1986, 96): in the case of indefinite null complements, the speaker can admit ignorance of the referent of the missing complement without the sentence sounding odd (ibid.):

(13) He was eating. I wonder what he was eating?

In (13), where the null complement is indefinite, both the statement and question remain natural. Whereas in the case of a definite null complement, the speaker admitting ignorance of the missing complement's referent would make the discourse seem unnatural (example after Fillmore 1986, 96):

(14) They found out. I wonder what they found out?

In (14) the question does not make sense, as the *something* that is found out has to be interpretable from context and the speaker is understood to already know the referent of the omitted complement.

If we apply this test to the adjective *averse*, it would seem that the predicate allows only definite null arguments. As an example of this, consider the following statement:

(15) You seemed averse.

In (15), the sentence can make sense only if the preceding context supplies something that *you* can be averse to. The referent of the omitted complement cannot remain unspecified to the speaker. *Averse*, then, can sometimes have its complements omitted, but only in cases where the referents of those complements are made clear within the context.

To refer to the concept of definite null arguments, Herbst et al. (2004, xxxi) use the term "contextually optional complements", describing these complements as optional only in cases where "their referent can be identified from the context."

### **2.1.3. The Theta Roles and the Theta Criterion**

The arguments that predicates take will be assigned different roles depending on the predicate and which of its argument is in question (Haegeman 1991, 41). These roles specify the relationship of the argument to the predicate, and are called thematic roles or theta roles (ibid.).

Cook (1998, 10) uses the term *case roles* to describe this same concept, and emphasizes that these roles are not categories, but relations: they cannot be assigned to arguments outside the context of a specific predicate, and are therefore not internal to the argument itself. This view is also found in Fillmore (1977, 65-66), who points out that case roles cannot be assigned categorical features, such as animate or inanimate. Instead, according to Fillmore (1968, 24), case notions, or roles, "identify certain types of judgements human beings are capable of making about events". These judgments include such aspects as "who did it, who it happened to, and what got changed" (ibid.). The case roles thus relate different actors and objects with different aspects of the meaning of the predicate.

According to Cowper (1992, 48), thematic roles are not dependent on whether the sentence is in the active or passive voice. Cowper (1992, 50) also points out that any particular thematic relation can occur in more than one position of a sentence, meaning that it is not possible to predict the thematic relation associated with a noun phrase solely on the basis of its structural position. This corresponds with Fillmore's notion that case roles are relational (Fillmore 1977, 65-66). Cowper states that knowing the meaning of the verb is integral in order to determine the thematic relations of noun phrases (Cowper, 1992, 50).

The predicate's thematic structure, in turn, is what determines which theta roles will be assigned, and to which arguments (Haegeman 1991, 41). However, each theta role needs to be assigned to an argument, and each argument needs to be assigned a theta role (Haegeman 1991, 42). Haegeman gives an example of this (Haegeman 1991, 43):

(16) \*Maigret killed the burglar the cellar.

The sentence in (16) is ungrammatical, as the predicate *killed* only assigns two theta roles. One is assigned to the subject, *Maigret*, and the other to the object, *the burglar*. This means that no theta role remains to be assigned to *the cellar*, and this causes the sentence to be ungrammatical (Haegeman 1991, 43-44). The theta criterion summarizes this requirement (Haegeman 1991, 45):

Theta criterion

Each argument is assigned one and only one theta role.

Each theta role is assigned to one and only one argument.

(Haegeman 1991, 46.)

Cook (1989, 182) notes that thematic labels, or case labels using Cook's own terminology, are not a body of labels that remains the same between the works of different grammarians. The number and types of labels instead differ between lists designed by different authors

(ibid.), though there is some overlap.

The labels presented here are after Cook (1989, 191): the Agent (abbreviated A), is the case "required by an action verb", as the performer of the action; the Experiencer (E), is then required by experiential verbs, as the being "experiencing sensation, emotion or cognition"; the Benefactive (B), possesses an object, or is the receiver ("non-active party") in transfers of property; the Object (O) is found with every verb, and is obligatory. The Object is described by Cook (1989, 191) as "the neutral underlying theme of the state, process, or action described by the verb", and with verbs describing actions or processes, the Object is what is moved or what undergoes change. The final case role in Cook's (1989, 191) list is Locative (L), which is "required by a locative verb". Locative describes spatial locations, which include directional sources and goals (ibid.). Cook considers "source" and "goal" to be included in the Locative, but these are also given as case roles on their own right by some authors (ibid.).

This list of cases is supported by tests made on large bodies of text, where every verb could be classified by using these five case labels (Cook 1989, 192). Thus Cook deems these five both necessary and sufficient, meaning that all five, and no other, cases are needed when classifying arguments as to their relation to the predicate (ibid.).

These concepts regarding theta / case roles will be utilized in the following section, which introduces the concepts of control and raising.

#### **2.1.4. Control and Raising**

Carnie uses the following sentences to exemplify the difference between what are called raising and control constructions (Carnie 2002, 255):

(17) Jean is likely to leave.

(18) Jean is reluctant to leave.

On the surface, these two sentences are similar: both have the same subject, *Jean*, an adjective as the predicate, *is likely* and *is reluctant*, which is then followed by the verb construction *to leave*. But structurally, the sentences are different: (17) is a raising construction, and (18) a control sentence (Carnie 2002, 255).

This difference can be seen in the argument structure of the two predicates *is likely* and *is reluctant*. In (17) *Jean* is the argument of *to leave*, not of *is likely* (Carnie 2002, 256). *Is likely* only takes one argument, which in this case is the proposition of Jean leaving (ibid.), which is bracketed in

(19):

(19) is likely [Jean to leave].

However, all English predicates need a subject, and thus, without any changes, (19) would be ungrammatical, because there is no subject for *is likely*. For this reason, the subject of *to leave*, *Jean*, is raised from the embedded clause (which is bracketed in (19)) to the subject position of the matrix clause (that is, the superordinate clause), resulting in sentence (17): *Jean is likely to leave*. In this case the subject *Jean* is said to leave a trace in the embedded clause, and this trace is marked with a *t* (Carnie 2002, 255). However, this trace is not an argument and cannot be assigned a theta role (Carnie 2002, 256).

(20) Jean is likely [*t* to leave]

On the other hand, the sentence in (18) has a different kind of structure. The predicate *is reluctant* requires two arguments: an Experiencer, that is, someone who is reluctant, and a Proposition, that is, something to be reluctant about (Carnie 2002, 259). This is in contrast to *is likely*, which only needed one argument, a Proposition.

In (18), in the case of *is reluctant*, *Jean* is the Experiencer and is an argument of *is reluctant*, and the other argument, the Proposition, is *Jean to leave*. However, also *to leave* needs an argument, a subject. In (17) this argument was *Jean*, which was unproblematic since the predicate *is likely* only assigned one theta role to the whole proposition *Jean to leave*. In (17) *is likely* did not assign a theta role of its own to *Jean*, and because of this *Jean* could be assigned a theta role by *to leave*. The same, however, is not possible in (18), because *is reluctant* already assigns a theta role to *Jean*. As stated before, the theta criterion does not allow more than one theta role per argument. This means that *Jean* in (18) cannot be assigned a theta role by *to leave*, as it already has a theta role from *is reluctant*.

Instead, there must be a third noun phrase (abbreviated NP) in the sentence, which is a null pronoun called PRO (Carnie 2002, 255).

(21) Jean is reluctant [PRO to leave].

This implicit pronoun is assigned a theta role by *to leave*, and it is co-referential with *Jean*. The subject, in this case *Jean*, is said to control the PRO (Carnie 2002, 255-256). In this way, *is reluctant* assigns its two theta roles to *Jean* and to the proposition that Jean leaves, and *to leave* assigns its one theta role to PRO. The result is that there is one and only one NP per theta role, which is required by the theta criterion.

To summarize, what differentiates control from raising is the absence of movement. Instead of having been moved from a position in the embedded clause, the subject or object of the matrix clause controls a null pronoun called "PRO" in the embedded clause (Carnie 2002, 255).

However, there is more than one type of control. Consider the following two sentences, also from Carnie (2002, 255-256). (22) here is the same sentence as (18), here presented again for the sake of clarity:

(22) Jean is reluctant to leave.

(23) Jean persuaded Brian to leave.

In (22) *to leave* assigns its theta role to PRO, which is then coreferential with the subject of the matrix clause. This is called subject control (Vosberg 2003a, 306).

This is presented in the following, where coreference is marked with a subscript *i*:

(24) Jean<sub>i</sub> is reluctant [PRO<sub>i</sub> to leave].

In (23), however, the PRO that *to leave* assigns its theta role to, is coreferential with *Brian*, the object of the matrix clause. This is called object control (Carnie 2002, 256).

In the following example, coreference is marked again with the subscript, this time with a subscript *j*:

(25) Jean persuaded Brian<sub>j</sub> [PRO<sub>j</sub> to leave].

The verb *persuade* assigns three theta roles: one to the subject *Jean*, one to the object *Brian*, and one to the proposition that Brian leaves. This means that *Jean* and *Brian* are both assigned a theta role by *persuade*, and PRO is needed in the embedded clause so that *to leave* can assign its theta role to it.

The difference between these two types of control is then whether PRO in the embedded clause is coreferential with the subject or object of the matrix clause, and the types of control are then named, respectively, subject and object control.

The type of control depends on the predicate: according to Sag and Pollard (1991, 65), the semantic type of the verb determines whether that verb takes subject control or object control. For example, they list verbs such as *order*, *persuade* and *permit* as verbs that take object control, and, on the other hand, verbs such as *promise*, *agree* and *try* as the type to take subject control (ibid.).

### 2.1.5. Differentiating Control and Raising in Practice

Is *averse* then a raising or control predicate? Carnie (2002, 262-263) introduces some tests than can be applied to predicates to determine whether they require raising or control constructions.

One test for determining whether a predicate is a raising or control predicate is to investigate how certain idioms behave if the predicate in question is inserted. Carnie uses the idiom *the cat is out of the bag* to illustrate this (Carnie 2002, 262). The idiomatic reading of *the cat is out of the bag*, that is 'the secret has become known', is only possible if the expression is left whole (ibid.). This means that no part of the expression can be isolated from the original idiom on the deep syntactic level. As Carnie (2002, 262) puts it, "the subject of an idiom must at some point be local to the rest of the idiom for the sentence to retain its idiosyncratic meaning". The difference between raising and control constructions can be seen in (26) and (27). Both examples are from Carnie (2002, 262):

(26) The cat is likely to be out of the bag.

(27) The cat is reluctant to be out of the bag.

In (26), where *is likely* is a raising predicate, the idiomatic reading is possible, and the sentence can be interpreted to refer to a secret being revealed. In (27), on the other hand, because *is reluctant* is a control predicate, the idiomatic meaning is no longer possible, and the sentence can only be interpreted as concerning a literal animal unwilling to vacate a physical container (Carnie 2002, 262).

The reason why the idiomatic reading is broken in (27) is that with control predicates the subject of the matrix clause (in this case *the cat*) was never in the embedded clause, but is only coreferential with the subject of the embedded clause, PRO (Carnie 2002, 263):

(28) The cat<sub>i</sub> is reluctant [PRO<sub>i</sub> to be out of the bag].

With raising predicates, however, the subject of the matrix clause originates in the embedded clause (in (29)), and is then moved – raised – to the subject position of the matrix clause (in (30)), leaving behind a trace (marked with a *t*) (Carnie 2002, 262):

(29) is likely [the cat to be out of the bag].

(30) The cat is likely [t to be out of the bag].

Thus, with raising predicates, the idiom stays whole, unlike with the control predicates where the idiom is broken.

This test can be applied to *averse*:

(31) The cat is averse to be out of the bag.

Here, only the literal reading is possible, and the sentence would be understood as concerning a literal feline, much like was the case with *is reluctant* above. Thus, *averse* appears to be a control predicate.

Another test to further prove this is the so-called *Weather It*. This test is introduced in Postal (1974, 369-370) and also discussed by Rudanko (1989, 11), who remarks that the *weather it* is only compatible with raising predicates, not with control predicates. According to Postal (1974, 369) certain verbs related to weather, such as *rain*, only occur with the NP *it* as a subject, such as in (32), and cannot appear with other subjects (such as in (33)):

(32) It is raining.

(33) \*Water is raining.

The weather verbs can then only occur with raising predicates:

(34) It is likely to rain.

(35) \*It is reluctant to rain.

This is because the *it* in this construction is what Carnie (2002, 263) calls an expletive *it*, and lacks an external referent and does not get a theta role. For this reason, the PRO in control constructions cannot be coreferential with it.

Applied to *averse* the *weather it* test yields the following sentence:

(36) \*It is averse to rain.

This construction is not possible, as long as *rain* here is understood as a verb. It is then confirmed that *averse* is a control predicate.

### 2.1.6. The Complement – Adjunct Distinction

The predicate determines how many elements need to occur in the sentence for it to be grammatical (Herbst et al. 2004, xxiv), these elements then being called complements (ibid.). For this reason, complements are then seen as being dependent on the governing predicate (Herbst et al. 2004, xxiv). However, complements are not the only elements that occur in sentences. Elements that are not dependent on the predicate are then called adjuncts (Herbst et al. 2004, xxiv).



According to Herbst et al. (2004, xxiv) adjuncts, unlike complements, are not "determined in their form by the governing verb", and are capable of occurring more freely. Adjuncts are not in general bound to certain verb types, but can instead occur with all verb types (Huang 1997, 75).

Herbst et al. (2004, xxiv) give the following sentences as an example of an adjunct:

(37) I walked along the cliff-path.

(38) I walked along the cliff-path *last night*.

In (38), the phrase *last night* is an adjunct (Herbst et al. 2004, xxiv). Omitting it in (37) does not result in the sentence becoming ungrammatical, nor does it alter the meaning of the predicate in a significant way. This demonstrates that the adjunct *last night* can be omitted relatively freely. In fact, according to Huddleston (1984, 177-178), adjuncts are always syntactically omissible.

The adjunct can also move into a different part of the sentence, such as:

(39) *Last night*, I walked along the cliff-path.

This is generally not possible for complements, unless there is a specific extraction effect taking place (Herbst et al. 2004, xxvi).

Similarly, Haegeman (1991, 32) uses the following sentences as an example of the complement – adjunct distinction:

(40) Miss Marple will reconstruct the crime in the kitchen.

(41) Miss Marple will reconstruct the crime.

It is possible to omit the phrase *in the kitchen* from the sentence without rendering the sentence ungrammatical.

However, further removing the phrase *the crime* will result in an ungrammatical sentence (Haegeman 1991, 32):

(42) \*Miss Marple will reconstruct.

This means that the prepositional phrase omitted in (41), *in the kitchen*, is optional. It provides information about, as Haegeman (1991, 32) puts it, "the manner, time or place of the event expressed in the sentence", but it is not needed to make the sentence grammatical, unlike *the crime*, which is mandatory for the sentence to remain grammatically acceptable. According to Haegeman (1991, 32) "optional phrasal constituents", such as the *in the kitchen* here, are adjuncts. Whereas *the*

*crime* that when omitted, caused the sentence to become ungrammatical, is a complement.

The obligatoriness of constituents can be determined from the argument structure of the verb (Haegeman 1991, 36), which was discussed earlier in this chapter. The arguments of the predicate are always obligatory, either explicitly or implicitly. In the examples above, *reconstruct* is a transitive verb, and therefore it needs two arguments. In sentence (40) these arguments are *Miss Marple* and *the crime*. *In the kitchen*, however, is not an argument of *reconstruct*, and thus not a complement, but an adjunct. Adjuncts do not get theta roles, and are not part of the predicate's argument structure (Huang 1997, 75-76).

However, it should be noted that the adjuncts' capability to be deleted freely is structural (Herbst et al. 2004, xxx): adjuncts may in some cases still be communicatively necessary, so that their deletion might render the sentence nonsensical, even if it would remain grammatically acceptable (ibid.). The complement – adjunct distinction is thus largely structural.

Indeed, Herbst et al. (2004, xxxii) emphasize that the boundaries between complements and adjuncts are gradient, and both complements and adjuncts should be "seen as prototypes indicating a stronger or looser relationship with the governing word."

### **2.1.7. The Great Complement Shift and the History of the -ing Form**

The English system of sentential complementation – that is the system of complementation where the complement is headed by a verb phrase, as opposed to nonsentential complementation, where complements are made of noun phrases – has three alternative complement constructions: the finite clause, the infinitive, and the *-ing* form (Vosberg 2003a, 305). Of these, the *-ing* form is a structure peculiar to English complementation (ibid.) and cannot be found in other languages. It has developed into a possible complement structure variant relatively late.

Originally the *-ing* form was a noun that was formed from the verb stem by adding the *-ing* suffix (Vosberg 2003b, 197). Indeed, the complement structure with an *-ing* form verb has developed from a noun phrase (Fanego 1996, 33). Beginning from Middle English, this form took on more verbal properties, undergoing a process of verbalization (ibid.). The first signs of this change from a nominal to verbal can be detected in the 12th century (ibid.). Initially, the *-ing* form occurred only after prepositions (Fanego 2007, 169). According to Fanego (2010, 206), this might explain why the gerund could spread despite the existence of the *to*-infinitive that was functionally very similar. As the gerund could occur in prepositional contexts where the *to*-infinitive could not, it could "remain

functionally different from the infinitive” (ibid.), and the two verb forms had space to co-exist.

Over time, the *-ing* form acquired the ability to have an object or predicative complement, it became modifiable by adverbial adjuncts that could occur only with verbs, and its subjects no longer had to be in the genitive case, but could also occur in other cases (Fanego 1996, 33). The *-ing* form also began to exhibit voice distinctions, and according to Fanego (1996, 41), passive gerunds have been recorded since the 15th century. This change, however, happened slowly, over several centuries. For example, the aforementioned passive gerunds remained rare during the 16th and 17th centuries, and still in late Modern English the verbal *-ing* form was not an acceptable object for several matrix predicates that now occur commonly with the *-ing* form (Fanego 1996, 33).

Indeed, in present-day English the *-ing* form verb is already well-established (Vosberg 2003b, 197). However, its emergence as a verb and a possible sentential complement has caused, in Vosberg's words, ”a re-arrangement of the entire system of verb complementation” (Vosberg 2003b, 197). Rohdenburg (2006, 143) uses the term the Great Complement Shift to describe this phenomenon. Rohdenburg considers the establishment of the *-ing* form as a non-finite complement as an important change (ibid). According to Rudanko (2012, 223), the sentential complementation of a number of predicates has changed in regards to the *to*-infinitive and the *-ing* form. This change has taken place despite the grammatical differences that exist between these two verb forms (ibid.).

One difference between the infinitive and the gerund forms is semantical: Fanego (1996, 38) notes that historically the nominal gerund, when occurring without premodification or postmodification – that is, occurring as the only constituent of its NP – would have a meaning of ”general practice, activity, art, etc., of (doing something)”. This feature of the gerund is retained in present-day English verbal gerunds, where a difference is considered to exist between the infinitive and the gerund: the infinitive is thought to more often refer to a particular occasion, whereas the gerund could also refer to a general statement or habit (ibid.). This is then one factor that could influence the choice of complement between these two verb forms.

According to Vosberg (2003a, 305) the *-ing* form is replacing one of the other variants of sentential complementation, that is, either the finite clause or the infinitive. Which one, is largely dependent on what kind of complements the adjective or verb allowed before this change took place (ibid.). It should be noted that this change is not restricted to matrix verbs only, but also affects adjectives (ibid.). It will be interesting to see whether this rise of the *-ing* form is true in regards to the adjective *averse*, and if evidence can be found that the complementation patterns of *averse* have been

affected by this change.

Vosberg (2003a, 310) has found, studying the verb *remember*, that complement change in American English follows the same pattern as in British English: the use of the infinitive is declining, and the use of the *-ing* form is rising. However, this change is somewhat delayed in American English, a phenomenon that Vosberg terms "colonial lag" (ibid.). However, in a study by Rohdenburg (2006, 154) the opposite is found to be true for the adjective *accustomed*. In the case of *accustomed*, the gerund, that is, the *-ing* form, is "distinctly further advanced" in American English than in British English (ibid.).

Vosberg (2003a, 306) lists several factors that have been suggested as possible constraints affecting the choice of sentential complements, these including such features as temporality (that is, whether the clause or verb is referring to past or future events), *horror aequi* and extractions as manifestations of cognitive complexity. Of these constraints, *horror aequi* and extractions will be discussed below in their own sections. Vosberg (2003a, 306) also lists several other factors: the frequency factor, stylistic orientations, and contextual factors. These, however, are not elaborated further by Vosberg, and therefore they are not discussed in this thesis.

### 2.1.8. The Complexity Principle

Cognitive complexity here refers to the speed and easiness with which a particular linguistic expression can be processed by the hearer or reader (Rohdenburg 1996, 149-150). The more cognitively complex the expression is, the harder and thus the slower it is to process.

The choice of grammatical variant can be influenced by the cognitive complexity of the environment (Rohdenburg 1996, 150-151), as is summarized in Rohdenburg's (1996, 151) complexity principle: "In the case of more or less explicit grammatical options the more explicit one(s) will tend to be favored in cognitively more complex environments."

Factors that influence the complexity of a sentence include negative sentences (Rohdenburg 2006, 147) and structural discontinuity (Rohdenburg 2006, 148), in which a predicate is separated from its complement by intervening elements. Rohdenburg (2006, 148) gives the following example of a clause with intervening elements, where the predicate is *promised* and the complement variant is either an infinitive clause (*to return immediately*) or a more explicit *that*-clause (*that he would return immediately*):

(43) "He promised his friends when he was challenged about it to return immediately

/ that he would return immediately.”

The intervening clause *when he was challenged about it* heightens the complexity of the sentence, and should thus cause the more explicit variant, which in this case is the *that*-clause, of the complement to be favored (Rohdenburg 2006, 148). These intervening elements are termed insertions by Vosberg (2003b, 220). Longer insertion are more difficult to process than shorter ones, and thus the acceptability of a sentential complement variant is dependent on not only the presence, but also the length of the intervening material (Vosberg 2003b, 210).

According to Rohdenburg (2006, 149-150), the most explicit variant of sentential complementation is the finite clause, the second most explicit the *to*-infinitive, and the gerundial complement (the *-ing* form) is thus the least explicit of these three variants. Because of the *-ing* form's historical origin as a noun, it is less explicitly sentential compared with the infinitive (Vosberg 2003b, 211).

Rohdenburg (1996, 151) gives the following sentences as an example of grammatical variants with different levels of explicitness:

(44) I helped him to write the paper.

(45) I helped him write the paper.

The *to* in (44) is what Rohdenburg names ”an optional grammatical signal” (Rohdenburg 1996, 151), that is, the sentence remains grammatical even when the preposition is removed, as is the case in (45). Out of these two sentences, (44) is considered the more explicit. In general, the more explicit variant is the ”bulkier” one (Rohdenburg 1996, 152), that is, the variant with more elements that distinguish it as a particular type of word or phrase, and thus lessen its ambiguity. In (44) this element is the preposition *to*, which introduces the verb *write*, but it could also be, among others, another preposition (Rohdenburg 1996, 151), an inflectional ending, or a particular verb form. This explains the explicitness of the *to*-infinitive, as it always includes the preposition *to* as a marker for the infinitive.

More explicit grammatical variants resolve or lessen ambiguities in the expression, making it easier to process and interpret.

However, as Rohdenburg states, the complexity principle alone cannot explain all variation, and can indeed be in conflict with other factors influencing this variation, such as stylistic and semantic factors (Rohdenburg 1996, 152).

### 2.1.9. Extractions

Extractions are operations where a part of a clause has been moved to an earlier position in the sentence, such as exemplified in (46):

(46) The Bahamas you said were warm in January. (Example from Perlmutter & Soames (1979, 229).)

These extracted elements are said to leave behind a "gap", a place in the sentence where a constituent is missing (Perlmutter & Soames 1979, 229). In (46) this gap would be after *said*, as in (47) (ibid.):

(47) You said \_\_\_\_\_ were warm in January.

The presence of the gap can be observed in the fact that the deletion of the initial NP would result in an ungrammatical sentence (Perlmutter & Soames 1979, 229):

(48) \* You said were warm in January.

According to Vosberg (2003a, 307), one of the factors that control the choice of verb form in the complement, and to some extent the evolution of the acceptability of different verb forms as complements, is that of extraction. Vosberg has summarized this in the extraction principle:

[...] in the case of infinitival or gerundial complement options, the infinitival will tend to be favored in environments where a complement of the subordinate clause is extracted (by topicalization, relativization, comparativization, or interrogation etc.) from its original position and crosses clause boundaries. (Vosberg 2003, 308.)

The four types of extraction mentioned in the principle are: relative extraction, where the extracted element is a relative pronoun (such as *which*, *whom* or *that*) that has an antecedent in the previous clause; comparative extraction, where the extracted element is part of a comparative sentence; topicalization, where a noun phrase has been moved to the beginning of the sentence, exemplified in (46) earlier; and interrogation, where the extracted element is an interrogative clause (Vosberg 2003a, 307).

Also Rohdenburg (2006, 154) shares this view of infinitives being favored in environments with extraction: extractions from infinitival complement clauses are, in Rohdenburg's view, "strongly preferred" over extractions from gerundial complement clauses (ibid.).

From the extraction principle quoted above, Vosberg argues that "the establishment of *-ing* complements must have been substantially delayed in contexts involving various kinds of

extractions” (Vosberg 2003a, 308). However, as time passes and the *-ing* form becomes more readily accepted as a complement in general, its acceptability in contexts involving extraction also rises (Vosberg 2003a, 310). This development could be due to the *-ing* form becoming more common as a complement, as the language norm, and thus more easily interpretable as such. This means that in contexts involving extraction, though they may be complex, it can be processed more easily than before.

To summarize: it seems that the *-ing* form, being a complement developed relatively late, needs to establish itself as a complement in less complex environments before it can be readily accepted in cognitively more complex situations.

The extraction principle also relates to the complexity principle, which was discussed above. Sentences with extractions are difficult to process (Vosberg 2003a, 307), and this will influence the choice of verb form, meaning that in extraction environments the more explicit variant would be favored. In cases where the possible variants include only the *to*-infinitive and the *-ing* form, the *to*-infinitive would be the favored choice, as it is considered more explicit than the *-ing* form (Rohdenburg 2006, 149-150). The extraction principle quoted above also states that infinitives tend to be favored over gerundials in extraction environments (Vosberg 2003a, 308).

#### **2.1.10. Horror Aequi**

As stated earlier in Section 2.1.7., Vosberg (2003a, 306) lists *horror aequi* as a factor influencing the choice of sentential complement. According to the *horror aequi* principle, there is a tendency to avoid identical or nearidentical grammatical forms or structures in adjacent positions (Rohdenburg 2003, 236). According to Rohdenburg, this tendency is widespread and ”presumably universal” (ibid.).

According to the principle, then, adjacent *to*-infinitives or other structures identical in form would be avoided (Rohdenburg 2003, 236). Instead, in the case of *to*-infinitives, the second or first infinitive could be replaced with a verb in the *-ing* form to avoid the use of two nearidentical structures. However, this phenomenon influences mainly the complementation of verbs, where the form of the matrix verb thus affects the form of the verb in the complement clause. This influence would be nonexistent or marginal in the case of adjectives, and as the studied word of this thesis is an adjective, this principle will likely remain irrelevant in this case.

## **2.2. Theories on Corpora**

As this thesis includes an analysis of corpus data, I introduce here some relevant points about corpus linguistics and corpora in general. Corpora are large bodies of text usually collected from different sources, and stored in a single database. These databases can then be searched by using search words or different functions. Some corpora are annotated, and in them parts of speech are marked and can be searched for. The concepts introduced below relate to corpus studies, and include those of precision and recall, and that of normalized frequencies.

### **2.2.1. Corpus Linguistics**

Corpus linguistics is, according to Conrad (2000, 548), the "empirical study of language relying on computer-assisted techniques to analyze large, principled databases of naturally occurring language." The fact that corpora include naturally occurring language is important, as before corpus studies linguistics had to rely on introspection and intuition when describing the grammar of a language. Corpora make it possible to make more objective statements, and statements that are verifiable by other researchers (Svartvik 1992, 8-9).

This type of research has only become usable in the last decades of the 20th century, as computer technology advanced and searching large databases became feasible (Conrad 2000, 548).

According to Conrad (2000, 548-549), corpus studies may result in changes in language teaching, as it can highlight differences between registers and connect grammar more concretely with vocabulary teaching. Corpora can include samples of languages from a wide array of geographical locations, and of different registers and contexts, meaning that language variation, dialects and style can be studied more easily (Svartvik 1992, 9).

Corpora also make it possible to study the frequency of different words, structures and phenomena (Svartvik 1992, 9). According to Lindquist (2009, 8), "frequency is an important concept in linguistics." By studying frequency, linguistic change can be studied much more comprehensively than what would be possible without large bodies of text that include data from different centuries.

### **2.2.2. Precision and Recall**

Precision and recall are terms often used in connection with corpus linguistics. Modern corpora are increasingly more sizable; often having word counts that number in tens or hundreds of millions, which means that they can only be searched with the help of electronic tools such as search engines.



Searching a corpus with electronic tools means that the researcher is relying on the tools and on the search strings that the researcher formulates in order to find relevant results. The term *precision* refers to how many of the results found with a particular query are relevant to the study subject in question. *Recall*, on the other hand, refers to how many of all possible relevant tokens in the corpus were found with a particular query.

Of these two concepts, recall is more difficult to determine in any particular study. Precision is relatively straightforward to examine: it is simply the number of relevant tokens in the overall number of hits. If the number of relevant tokens is high in relation to the overall hits, then precision is high, and vice versa. However, recall is less transparent. C.N. Ball (1994, 295) discusses the problem of recall in length, pointing out that the overall number of relevant words or phrases in the whole corpus is impossible to determine with automatic text analysis tools. To determine the precise number of relevant tokens in any corpus, the corpus would have to be analyzed by hand (*ibid.*), and undertaking such a project would take months or years. Indeed, Ball remarks that it is generally easy for users to determine whether their search has high precision, but they are unable to determine whether they missed relevant tokens in the corpus (Ball 1994, 296).

There are only very limited means to determine whether one has found all the possible relevant tokens in the corpus with any search string. Only in cases where the search string is very simple and unambiguous, can the researcher be relatively confident that they have found all tokens they tried to find. Even then, there is a possibility of tokens not found due to spelling or other errors in the corpus itself.

An example of such a simple and unambiguous search string could be the adjective studied in the present thesis: *averse*. As *averse* is an adjective, it cannot be conjugated in English. Unlike with most verbs, which need all their different forms searched (sometimes individually), *averse* only has one form that needs to be found, that being "averse". The search string in this case is simply this one word. Apart from the aforementioned spelling or technical errors in the corpus, the search should return all relevant tokens in the corpus. Whether all returned tokens are relevant or not, is less certain, as *averse* can be used in ways that are not relevant to the study of complementation (meaning it can, in rare cases, be found used attributively, in which case it cannot take complements). Though I predict the precision and recall in this thesis to be high, this is by no means the norm of corpus studies, where in general both concepts are of high relevance when formulating and modifying searches and search strings.

### 2.2.3. Normalized Frequencies

Another concept to do with corpora, and specifically to do with the presentation and analyses of corpus data, is that of normalized frequencies. According to Douglas Biber et al. (1998, 263), normalizing frequency counts is important when comparing texts of different lengths in order to avoid presenting misleading results. The frequency in question is then the frequency of the tokens found for the specific search conducted.

Raw frequency counts cannot be compared with one another, especially not if the source texts are of different lengths, as the phenomenon studied would have had more opportunities to occur in the longer texts (Biber et al. 1998, 263).

Normalization of the counts offers a way to compare texts more accurately (Biber et al. 1998, 263). First, a basis for norming should be chosen. Normalized frequencies are then counted by dividing the raw frequency by the total number of words in the analyzed text, and then multiplying that by the basis.

Biber et al. (1998, 263) give the following example of norming frequency counts for two texts. In this example the raw frequency of occurrences in the analyzed text is 20 in both texts, the lengths of the texts are 750 words and 1,200 words, and the basis for norming is 1000 words:

After Biber et al. (1998, 263):

Text 1

$(20 \text{ occurrences} / 750 \text{ words}) \times 1,000 = 27,5 \text{ occurrences per } 1,000 \text{ words}$

Text 2

$(20 \text{ occurrences} / 1,200 \text{ words}) \times 1,000 = 16,7 \text{ occurrences per } 1,000 \text{ words}$

Here we see that although the raw frequencies implied that the phenomenon studied occurs as frequently in both texts, normalizing the frequencies shows that this is misleading: the phenomenon is in reality more frequent in Text 1. Biber et al.'s example reveals the importance of norming frequencies when comparing two texts of different lengths.

Biber et al. also caution against using bases that do not match the length of the text: using bases that are too high relative to the analyzed texts could inflate the results so that the phenomenon studied appears more frequent than it in reality is (Biber et al. 1998, 264). For this reason, texts that have a length of approximately 1,000 words should also be normed to a basis of 1,000 words, and

shorter texts to a basis of 100 words and so on (ibid.). In this way the presented frequencies are accurate and comparable with other texts.

In this thesis normalized frequencies are used when comparing frequencies between different parts of the corpus studied. As the number of words between these parts varies, normalized frequencies are used to make the frequencies comparable between the parts. In this thesis the frequencies will be normalized per million words, as the size of the corpus is of a similar scale. These normalized frequencies will be presented with the patterns found in the corpus.

### 3. Averse in Other Literature and Dictionaries

In the following section, I examine some previous literature on the adjective *averse*, including a number of grammars and dictionaries. Several different dictionaries are investigated from the point of view of *averse*, especially focusing on the patterns the dictionaries associate with the adjective.

#### 3.1. Grammars

The grammars I initially consulted were *The Longman Grammar of Spoken and Written English*, *The Cambridge Grammar of the English Language*, and *A Comprehensive Grammar of the English Language*. However, as *averse* cannot be found in the lexical index of *The Longman Grammar*, only the other two grammars will be considered further.

##### 3.1.1. The Cambridge Grammar of the English Language

*The Cambridge Grammar of the English Language* (published in 2002) by Huddleston and Cullum lists *averse* as an adjective that can occur with the prepositions *from* and *to*, and also remarks that *to* “is strongly favored in the case of *averse*” (Huddleston & Cullum 2002, 544-545). There is no mention of *averse* occurring with any other preposition (ibid.). Huddleston and Pullum also categorize *averse* in the group of “never-attributive adjectives”: that is, adjectives that cannot occur in attributive position, but are predicative-only (Huddleston & Pullum 2002, 559). *Averse* is here listed within a “group of very clearly non-attributive adjectives” (ibid.). Huddleston and Pullum (2002, 559) provide an example of a non-attributive adjective with *asleep*:

(1) a. A child is asleep.

b. \*An asleep child.

*Averse* is grouped within this type of adjectives, and should thusly behave in a similar way. However, Huddleston and Pullum also add that sentences like (1b) can be deemed more acceptable if the clause is further modified or if there is coordination. The following examples are also by Huddleston and Pullum (2002, 559):

(2) a. \*Their awake children.

b. Their still awake children.

Here the sentence is improved by adding *still* to modify the adjective.

### 3.1.2. A Comprehensive Grammar of the English Language

In *A Comprehensive Grammar of the English Language* (published in 1985) Quirk et al. also remark that *averse* cannot be used attributively (Quirk et al. 1985, 408), and they continue this by noting that many of the adjectives that are “restricted to predicative position” are also adjectives “which can take complementation” (Quirk et al. 1985, 433). These types of adjectives include *averse* (ibid.). In fact, according to Quirk et al. it is normal for many of these adjectives to take complementation, and for some it is even obligatory (ibid.).

Quirk et al. (1985, 1221) give *averse* as an example of an adjective for which complementation is obligatory, and they give the following sentences as examples:

- (3) a. Max is averse to games
- b. \*Max is averse.

Thus according to Quirk et al., sentences where *averse* occurs without a complement are ill-formed (Quirk et al. 1985, 1221). In Section 2.1.2., a concept related to this was discussed: according to Fillmore (1986, 96) complements can sometimes be omitted if their referents can be determined from the context, and these are called definite null complements. In the case of (3b), the sentence is ungrammatical if it appears alone, but could be rendered more acceptable if it occurred in a context that would give a known referent for the missing complement after *averse*, such as *I like games. Max is averse.* It follows then that even if complements indeed are obligatory with *averse*, they may not need to be stated explicitly. Whether instances of omitted complements can be found in the data, will remain to be seen.

Unlike Huddleston and Pullum, Quirk et al. list *averse* as occurring only with the preposition *to*, and not with *from* (Quirk et al. 1985, 1221-1222). However, they do give the following remark: "In the past, prescriptive objections have been made to the use of *to* rather than *from* after *averse*... However, *to* is the normal preposition to follow *averse*,..." (Quirk et al. 1985, 1222), which suggests that it has not always been the case that *averse* mainly occurs with *to*.

### 3.2. Dictionaries

The dictionaries consulted in this thesis include *The Oxford English Dictionary* (2nd edition, published 1989; hereafter *OED*), *The American Heritage Dictionary of the English Language* (4<sup>th</sup> ed., 2006;

*AHD*), *Random House Unabridged Dictionary* (2<sup>nd</sup> ed., 1993; *RH*), *Merriam-Webster's Collegiate Dictionary* (11<sup>th</sup> ed., 2003; *MWCD*) and *Webster's New World College Dictionary* (4<sup>th</sup> ed., 2002; *WNWCD*). Even though the data analyzed in this thesis is gathered from an American English corpus, the *OED*, despite it being a British English dictionary, is included here because it is widely used and also regarded by many as the absolute authority on the English language, regardless of the particular variant of English under discussion. Apart from the *OED* the dictionaries I have chosen to consult have all been published in the United States, and thus can be expected to deal more closely with the particular variant of English known as American English, and which is the variant examined in this thesis.

### 3.2.1. The Oxford English Dictionary

This section examines the senses and examples given by *The Oxford English Dictionary* for the adjective *averse*. The word *averse* can also be used as a noun, but as this use is not the focus of this thesis, only the adjective variant will be considered here.

There are five senses in total for the adjective *averse* in the *OED*, only one of which is not marked obsolete (*OED* s.v. *averse* adj.). In the following table (Table 1), all the senses given by the *OED* are listed even though the *OED* considers most of them currently obsolete. However, examples dating from earlier than the 17th century have been omitted, as they cannot be considered modern English. In the table, attributive uses have been marked with the abbreviation *attr*. These will not be considered further in this thesis, though, as according to Quirk et al. the use of *averse* in attributive position is not considered possible in standard present-day English (Quirk et al. 1985, 1221), and indeed all examples of attributive use are marked obsolete in the *OED*. Attributive uses of the adjective also cannot take complements, and would therefore not be the focus of this thesis regardless. However, if such instances of *averse* are found in the corpus as I analyze my search results in the latter part of this thesis, I will remark on them.

Table 1 does not include all the examples listed in the *OED*: examples of the same type of pattern within one sense have been omitted because their inclusion would not bring anything more to the analysis. Obsolete entries have been marked with the symbol † in the table.

Definition	Example(s)	Pattern(s)
†1.a. Turned away, averted; turned in the backward or	a. 1682 SIR T. BROWNE Christian Morals Two	Attr.

reverse direction. Obs.	Faces averse, and conjoined Janus-like	
b. quasi-adv. = AVERSELY adv. 1. Obs.	b.1607 E TOPSELL Hist. Fovre-footed Beastes The haire [of the oryx] groweth auerse.. Forward toward his head.	zero
†2. Lying on the opposite side. Obs.	1667 MILTON Paradise Lost On the Coast averse From entrance or Cherubic Watch..Found unsuspected way.	from + NP
†3. In the rear, behind. (So in Latin) Obs.	1646 SIR T. BROWNE Pseudodoxia Epidemica The situation of the genitalls is averse.	zero
4.a. Turned away in mind or feeling; actuated by repugnance; habitually opposed, disinclined	a. 1671 MILTON Samson Agonistes Some much averse I found and wondrous harsh.	zero
b. Const. from. to.	b. D. HUME Hist. Eng. Licentious tyrants..equally averse from peace and from freedom	from + NP
	a1771 T. GRAY Poems What Cat's averse to fish?	to + NP
c. With inf. disinclined, unwilling, reluctant	c. 1646 SIR T. BROWNE Pseudodoxia Epidemica We are not averse to acknowledge, that some may distill..into the winde- pipe.	to + inf.
	1777 R. WATSON Hist. Reign Philip II Averse at this time from declaring herself openly.	from + -ing
	1864 R. F. BURTON Mission to Gelele 8 Even	to + inf.

	the grass is, from idless, averse to wave.	
†5. Of things: Of opposed nature, adverse. Obs.	1623 P. MASSINGER Duke of Millaine Tell me rather, Than the Earth moues; The Sunne, and Starres, stand still;..Or any thing that is auerse to Nature.  a1706 J. EVELYN Hist. Relig. Whatever prejudices ill education..or other averse accidents may have produced	to + NP          Attr.

Table 1. Averse in *The Oxford English Dictionary*.

As can be seen from the table, sense 4 with all of its subsenses is the only one not marked obsolete in the *OED*. There are five complement patterns found for this sense in the *OED*: *averse* occurring with a zero complement, with *from* + NP, *from* + *-ing* clause, *to* + NP, and with *to* + infinitive clause. Under sense 4 there is one example of *averse* where it occurs without a complement (example for sense 4a), which seems to be different from Quirk et al.'s (1985, 1221) claim that complements are obligatory with *averse*. However, as Huddleston and Pullum (2002, 559) pointed out, the acceptability of *averse* without complements can be improved by modifiers, as is the case in this example with *much* modifying the adjective *averse*.

There is a remark under sense 4b that “The use of the [preposition] *to*, rather than *from*, after *averse*... although condemned by Johnson as etymologically improper, is justified by the consideration that these words express a mental relation analogous to that indicated by *hostile*, *contrary*, *repugnant*..., and naturally take the same construction” (*OED* s.v. *averse*, adj. sense 4b). This passage refers to Samuel Johnson's *A Dictionary of the English Language* (hereafter *DEL*), which was originally published in 1773. Its entry on *averse* has the following notes on usage: “”3. it has most properly *from* before the object of aversion. ... 4. Very frequently, but improperly, *to*.” (*DEL* s.v. *averse*, adj. sense 3 and sense 4). This is similar to Quirk et al.'s claim that *averse* has been earlier used with *from*, but *to* has since then replaced *from* as the “normal preposition to follow with *averse*” (Quirk et al. 1985, 1222).

Johnson's remark could also be seen as one of the “prescriptive objections” that Quirk et



al. (1985, 1222) allude to, as it marks the use of *to* as “improper” (*DEL* s.v. *averse*, adj. sense 4). Also, according to the *OED* under sense 4b, “aversion in the sense of an action, which would properly be followed by *from*, is now obsolete” (*OED* s.v. *averse*, adj. sense 4b). This again reiterates the points that Johnson and Quirk et al. have made regarding the use of *to* versus *from* with *averse*.

From these three sources, it can be deduced that a change has taken place in the complementation of *averse* before the 19th century, that is, a shift from the use of the preposition *from* towards that of *to*. It will be interesting to see, whether we can find occurrences of *averse* with both prepositions in the corpus data.

Huddleston and Pullum’s claim (2002, 559) that *averse* can only be used non-attributively seems to be at least partly unjustified, as there are several examples of attributive usage in the *OED* (under senses 1 and 5). This can, however, be explained by the fact that all of the senses with examples of attributive use are marked obsolete.

### 3.2.2. The General Dictionaries

According to the *Random House Unabridged Dictionary (RH)*, *averse* has the following meaning: “Having a strong feeling of opposition, antipathy, repugnance, etc; opposed” (*RH* s.v. *averse*). There is also the following example: “He is not averse to having a drink now and then.” The complement used here is a *to* + *ing* construction.

The entry for *averse* in the *RH* directs the user to another entry for usage notes, namely to that of *adverse* (*RH* s.v. *averse*). The entry for *adverse* then offers the following information about the two adjectives:

The adjectives ADVERSE and AVERSE are related both etymologically and semantically, each having “opposition” as a central sense. ... AVERSE is used of persons and means “feeling opposed or disinclined”; it often occurs idiomatically with a preceding negative to convey the opposite meaning “willing or agreeable” and is not interchangeable with ADVERSE in these contexts: We are not averse to holding another meeting. The related noun is aversion: She has a strong aversion to violence. AVERSE is usually followed by *to*, in older use occasionally by *from*. (*RH* s.v. *adverse*)

The remark that *averse* is followed “in older use occasionally by *from*” is in accordance with what Quirk et al. said about the adjective (See Section 3.1.2.) and also with the information offered by the *OED* and the *DEL*. There are no examples with *from* in the *RH*, and *to* is given as the default option. All the examples for the adjective *averse* in this dictionary have a *to* + *ing* complement.

*The American Heritage Dictionary of the English Language (AHD)* gives the following

definition for *averse*: “Having a feeling of opposition, distaste, or aversion; strongly disinclined” (*ADH* s.v. *averse*.), which is very similar to the one in the *RH*. This dictionary does not include any notes on the usage of *averse*, but there is one example in the entry: “investors who are averse to taking risks” (*ibid.*). In this example, similarly to the example found in the *RH*, *averse* is used with a *to* + *ing* complement. No other complement patterns or examples are provided by the *AHD*.

### 3.2.3. The Collegiate Dictionaries

The collegiate dictionaries studied for this thesis (that is, *Merriam-Webster’s Collegiate Dictionary* (*MWCD*) and *Webster’s New World College Dictionary* (*WNWCD*)) each give very brief and concise definitions of *averse*, which are also very light on both example sentences and notes on usage. Still, I have provided a brief summary of their treatment of the adjective here.

*WNWCD* gives two senses for *averse*, one of which is relevant for the current discussion:

1. “Not willing or inclined; opposed (to)” (*WNWCD* s.v. *averse*). The other, irrelevant, sense has to do with botany, and does not concern complementation. *WNWCD* gives no example sentences for *averse*, and thus no patterns can be listed for it.

According to *MWCD*, the word *averse* means “having an active feeling of repugnance or distaste” (*MWCD* s.v. *averse*). It is also mentioned in the entry that *averse* is usually used with *to* (*ibid.*). There is also the following example: “< ~ to strenuous exercise>”, which has a *to* + NP complement.

There is no mention of *from* being used as a preposition in either dictionary.

### 3.3. Conclusions on Dictionaries

The complementation patterns found in the studied dictionaries, other than the *OED*, are *to* + NP and *to* + *-ing*. However, as there were hardly any examples found in any of the dictionaries, these results are somewhat negligible. The *RH* was the only dictionary to mention *from* as a preposition used with *averse*, and even then it mentioned *from* as older usage.

These consulted dictionaries of course mainly concern present-day (American) English. One would not expect to find obsolete patterns, or patterns that are used only very marginally, in these types of dictionaries (that is, in collegiate and general-purpose dictionaries). Dictionaries are, after all, limited in space and tend to focus on current usage.

The *OED*, on the other hand, can be classified as a historical dictionary. This shifts its

focus from including only contemporary language use, to also including historical forms as well as more detailed information about etymology.

All in all, there is, on the part of the grammar books and the dictionaries referenced here, clear evidence that some diachronic change has taken place in the choice of prepositions that can be used with *averse*. Whether this can be verified with corpus data is a question that I turn my attention to in Chapter 4 where I analyze my dataset from *The Corpus of Historical American English*.

## 4. Analysis

In this part I analyze data collected from *The Corpus of Historical American English*. I begin by briefly introducing the corpus in question, and then move on to analyze the data in section 4.2. and its subsections.

### 4.1. The Corpus of Historical American English

*The Corpus of Historical American English (COHA)* is a diachronic corpus created by Mark Davies of the Brigham Young University, and its sister projects include, among others, *The Corpus of Contemporary American English (COCA)* and *The Corpus of American Soap Operas*. The *COHA* was created in 2010 and is funded by the US National Endowment of the Humanities. (<http://davies-linguistics.byu.edu/personal/>.)

According to its introductory webpage, the *COHA* is “[...] the largest structured corpus of historical English” ([http://corpus.byu.edu/coha/help/intro\\_e.asp?w=&h=](http://corpus.byu.edu/coha/help/intro_e.asp?w=&h=)). It includes a total of 406 million words, making it a very sizeable corpus, well suited for studying rare words, such as is the focus of this thesis. The texts in the corpus are mainly collected from *Project Gutenberg*, *Making of America*, and from the 1990’s onwards, the *COCA*. Half of the texts in the corpus are from the domain of fiction (207 million words), and the other half comprises of inserts from popular magazines (97 million words), non-fiction books (61 million words), and from 1860’s onwards also from newspapers (40 million words) ([http://corpus.byu.edu/coha/help/texts\\_e.asp](http://corpus.byu.edu/coha/help/texts_e.asp)). The corpus includes material from 1810’s onwards up until the year 2009, and only includes American English.

In the following sections I examine the data collected from the *COHA* in depth. The whole of the corpus is not analyzed in this thesis, but I have selected sections of it for analysis: there are four of these sections, each comprising of three decades, starting from the year 1820. There is also a two decade gap between each section, so as to better highlight any diachronic changes to the complementation patterns. Otherwise the division of the data into different sections is rather arbitrary, and could have been done in a number of different ways, as the *COHA* is simply divided into decades without further grouping the samples.

### 4.2. The Analysis of Averse

In summary, the four sections of analysis include data from the following years:

Section 1: 1820-1849  
Section 2: 1870-1899  
Section 3: 1920-1949  
Section 4: 1970-1999

The sections will be discussed in chronological order. Within the sections, the patterns found to occur with *averse* are grouped into nonsentential and sentential patterns. The nonsentential patterns are those in which the complement is a noun phrase, and they will be discussed first. The sentential patterns are discussed second, and include patterns where the complement is a verbal clause, that is, an infinitive clause, a gerundial clause (for which the term *-ing* form is used), or a finite clause. The patterns are divided into nonsentential and sentential because the complements of either group have different functions: they are not communicatively interchangeable. Whereas complement patterns within the nonsentential group are to some extent interchangeable, and the same is true for the patterns within the sentential group. Thus any change is more likely to happen within either group, than between them.

Normalized frequencies (abbreviated NF in the tables), when used in this part, have been calculated per million words.

#### 4.2.1. Analysis of *Averse* from 1820 to 1849

In this section I analyze the occurrences of *averse* found in the *COHA* from the year 1820 to the year 1849, a part of the corpus that comprises of approximately 37 million words, from fiction (which is abbreviated FIC in the *COHA* and here), popular magazines (MAG), and non-fictional books (NF). There is no data from newspapers (NEWS) in this part of the corpus, as newspaper data appears in the *COHA* only in the 1860's.

In the subsection of the corpus analyzed in this section, the query 'averse' returned a total of 257 tokens, out of which six were not relevant for this thesis. Of these six, two were not analyzed because a part of their spelling was incomprehensible, most likely due to technical reasons such as errors in automated text digitalization:

(1) You know he was **averse** to takiwr Beloiuim I declared most positively that this would never do. (COHA, 1836, MAG)

(2) Elizabeth, though resolute against submitting to the papal supremacy, was not so **averse** to ah 1 the tenets abjured by Protestant. (COHA, 1849, NF)

The four remaining tokens left out of the analysis were instances of *averse* occurring

attributively, as in

(3) And flies **averse** the interdicted strand. (COHA, 1820, FIC)

(4) Though not to me the muse **averse** deny, Sometimes, perhaps, her visions to  
descrie,... (COHA, 1831, FIC and COHA, 1835, FIC)

This attributive use of the adjective seems to contradict Huddleston and Pullum's claim that *averse* can only occur non-attributively (Huddleston & Pullum 2002, 559). This apparent deviation from the standard use of *averse* found in the data can be partly explained by the fact that the instances presented in (3) and (4), and the two others not presented here, are poetic language: poetic language can contain archaic features, or features and types of word order that would be interpreted as ungrammatical in other written or spoken registers. Also, this section of the analysis being the oldest studied in this thesis, these cases of attributive use can be argued to represent old usage that has since then become obsolete. Nevertheless, *averse* in attributive position cannot take complements, and these attributive tokens are thus irrelevant to this analysis.

In the following table (Table 2) the 251 relevant tokens are presented, and categorized according to their complementation pattern, in the order of the patterns' frequency in the data:

Complement type	Number of instances	Percentage	NF (per million words)
<i>To</i> + NP	159	63.3	4.33
<i>To</i> + <i>-ing</i>	33	13.1	0.90
<i>To</i> + infinitive	18	7.2	0.49
<i>From</i> + NP	14	5.6	0.38
<i>To which</i>	8	3.2	0.22
zero	7	2.8	0.19
<i>From</i> + <i>-ing</i>	5	2.0	0.14
<i>To</i> + NP(pos) + <i>-ing</i>	4	1.6	0.11
<i>From</i> + NP(pos) + <i>-ing</i>	1	0.4	0.03
<i>That which</i>	1	0.4	0.03
<i>To</i> + zero	1	0.4	0.03
<b>Total</b>	<b>251</b>	<b>100.0</b>	<b>6.83</b>

Table 2. Complements of *averse* from 1820 to 1849.

### Nonsentential Complements, 1820-1849

The major patterns of nonsentential complements found in the *COHA* between the years 1820 and 1849

were those of *to* + NP and *from* + NP. *To* + NP, which is a pattern that has the preposition *to* followed by a noun phrase, was also the most common complement in this set of data overall. It occurs 159 times in this part of the corpus, which is 63.3 per cent of the total number of occurrences for *averse*. Some examples of this complement type are presented below:

(5) Contrary to his expectation, he found my brother **averse** to the scheme. (COHA, 1827, FIC)

(6) ...in communities hostile to their religion and country, and **averse** to their manners and customs... (COHA, 1830, MAG)

The second most common nonsentential complement type in this subsection of the corpus is that of *from* + NP, which occurs 14 times in this set of data, with a percentage of 5.6. Similarly to the *to* + NP pattern, the *from* + NP pattern has the preposition, in this case *from*, followed by a noun phrase. Compared to the 159 instances of *to* + NP, the *from* + NP complement variant is considerably less common. Here is an example of the *from* + NP complement type:

(7) ...was more than ever **averse** from quiet, persevering study. (COHA, 1843, MAG)

There seems to be no significant difference between the noun phrases of *to* + NP and *from* + NP. The choice of preposition seems to be purely stylistic or dialectal.

It is notable that, at least in this section of the dataset, both prepositions *to* and *from* make appearances. Whether this occurrence of both prepositions is an indicator of change in the complementation of *averse* remains to be seen: one point of reference does not yet reveal change within time, but the further analysis in the following sections may reveal diachronic differences in the usage of prepositions in the complementation of *averse*.

In the examples analyzed the choice of preposition does not influence the meaning of the adjective or of the sentence as a whole. There are also no semantical differences associated with *to* or *from* in this case, but the preposition works only as an obligatory grammatical element. Some nouns occur with both complement variants, among them *war*, with *to* in (8) and *from* in (9), and *controversy*, with *to* in (10) and *from* in (11) :

(8) The empress Maria Theresa, anxious for the life of her children, and from every principle and feeling **averse** to war, sent is special message to Frederic,... (COHA, 1828, MAG)

(9)...a suspicion begins to dawn among the friends of the government that the actual administration (ministers) is not **averse** from war with France. (COHA, 1847, MAG)

(10) Bishop Griswold, though exceedingly **averse** to controversy, felt impelled... (COHA, 1845, MAG)

(11) **Averse** from controversy by nature, he loved not to preach polemical divinity, much less polemical politics, into which every body else entered. (COHA, 1845, MAG)

Other noun phrases that occur with *averse* in this set often refer to marriage, disagreement, violence, different types of objects (such as flowers, pedestals (in the literal sense)), human objects (both pronouns and other referents), and plans. An example of a word in the "plan" category is *scheme*, which occurs in this set of data several times, as in (12) and (13):

(12) I could not be expected to be very **averse** to the scheme. (COHA, 1827, FIC)

(13) Contrary to his expectation, he found my brother **averse** to the scheme. (COHA, 1827, FIC)

These two examples, however, are from the same source (*The Novels*, by Charles Brockden Brown), which could indicate the author's idiosyncratic way of using language. It remains to be seen whether this word occurs also in the other decades analyzed in this thesis, which will be discussed in later sections.

Most of the nouns that appear in the complements refer to abstract, incorporeal things. Complements referring to concrete objects are rarer, though there are some instances of these. The majority of complements, however, refer to abstract or general ideas.

There seems to be no significant semantic or structural difference between the noun phrases that occur in *to* + NP complements and those that occur in *from* + NP complements. In both cases, the length of the complement phrase varies, from a single noun to a longer phrase, such as (14).

(14) and an Agent of the Anti.Slavery Society, in a public assembly in this town, is a proof that the people in this quarter are **averse** to any improper interference with the Southern institutions. (COHA, 1833, MAG)

That said, in this set of data there are no noun phrases that refer to animate beings in the *from* + NP complement pattern. However, as noun phrases referring to animate beings were relatively rare also with the *to* + NP complements, and the overall number of instances for *from* + NP is quite small in relation, it is likely that this is coincidental and does not signify a remarkable difference between the two variants.

To summarize, in this set of data *averse* only rarely occurs with an animate or human



noun in its complement phrase. More often the complements refer to actions and ideas.

Together these two NP type complements present 68.9 per cent of the total number of complements found in this section. The data from 1820 to 1849 is thus dominated by nonsentential complements, mostly of the *to* + NP type.

Both complements occur in all three categories of texts marked in the *COHA* (fiction, magazines, non-fiction) available for the timespan of this dataset.

In this set of data, extractions occur 16 times with NP complements. Of these, 8 are *which*-clauses, such as the following:

(15) ...and particularly the best and dearest wife in the world, prevailed with me to sign petitions for my life, to which I was ever **averse**... (COHA, 1832, NF)

Here, the *to which* phrase precedes the adjective *averse*. This is an example of relative extraction, which was discussed in Section 2.1.9.: the extracted element *to which* can be understood to originate from a position immediately following *averse*, from which it has moved to its current position. The extracted element refers to an antecedent in the preceding clause, in the case of sentence (15) to *me to sign petitions for my life*. Without this extraction, the sentence would read as follows:

(16) I was ever **averse** to sign petitions for my life.

The *to which* pattern, though it could also be analyzed as belonging in the pattern *to* + NP, is here classified as a pattern of its own due to its relative frequency when compared with any other specific noun that occurs in the *to* + NP pattern, and for its frequency as a pattern which involves extraction.

In addition to the instances of relative extractions discussed above, the extractions also involved topicalization (in (17) and (18)):

(17) But to this procedure I was **averse**; (COHA, 1846, FIC)

(18) and altogether such an one as no man need be **averse** to, as an help-meet.  
(COHA, 1824, FIC)

In (17) the preposition *to* is extracted along with the noun phrase *this procedure*, whereas in (18) only the noun phrase, *such an one* is extracted, and the preposition *to* remains in a position after *averse*.

All the extractions found here occur with the preposition *to*, there are no instances of extractions occurring with *from*. However, there is one occurrence of *averse* occurring with neither *to*

or *from*, an extracted *which* -clause, again an example of relative extraction:

(19) Bayard was saying, as in conclusion of what might have been an expostulation and argument to enforce the Governor's performance **of that which** he was in some wise **averse**... (COHA, 1827, FIC)

Here the complement of *averse* is *of that which*. This complement is one of a kind within the data studied in this thesis, but this particular exception is not entirely incomprehensible within the context of the sentence: the complement's preposition and form seem to have been wholly influenced by what comes before it, that is, the clause *to enforce the Governor's performance*. *Of* commonly occurs with the noun *performance*, and indeed in this case the complement's proximity to the noun *performance*, and conversely, its distance from *averse*, may have modified the complement so that it does not include the preposition *to* or *from*. In any case, in its current form, this particular instance does not resemble the other patterns found with *averse* in this set of data.

There are 7 instances of *averse* occurring with no complement and no preposition in the data. This is in contrary to complements being obligatory with *averse*, as remarked by Quirk et al (1985, 1221), as discussed in Section 3.1.2. According to Quirk et al. (ibid.) sentences where *averse* occurs without a complement, such as (20), are ill-formed. Three examples of *averse* occurring without a complement are presented here in (20), (21) and (22)

(20) who seeks and is contented with the person, while the heart is **averse** or indifferent. (COHA, 1827, FIC)

(21) I could not refuse; and, after a moment's consideration, I was **averse** no longer. (COHA, 1835, FIC)

(22) You were not, I remember, so **averse**, the last time we were alone together. (COHA, 1846, FIC)

Here, the examples could be explained with the arguments being implicit (Haegeman 1991, 38), or with the presence of definite null complements as discussed by Fillmore (1986, 96).

In (20), (21) and (22), the referent of the missing complement can be expected to be interpretable from the context of the discourse: in (20) the referent can be understood to be *the person* in the preceding clause. Also in (20), *averse* is paired with another adjective, *indifferent*, which may influence the lack of complementation in this case. In (21), the referent of the missing complement has to be interpretable from the longer discourse preceding the example for the sentence to make sense. The same is true for (22), where the object of aversion is not directly stated, but could, and would have to

be, understood to refer to either being alone with the speaker, or something defined in the larger context. Indeed, it seems that zero complements in the case of *averse* correspond to Fillmore's definite null complements (Fillmore 1986, 96), where the complement is omitted, but its reference is definite and interpretable from context.

In this dataset, there is also one instance of *averse* occurring with the preposition *to*, but with no following verb or noun phrase.

(23) Call the act of the will, therefore, by what name you please choosing, refusing, approving, disapproving, liking, disliking, embracing, rejecting, determining, directing, commanding, forbidding, inclining or being **averse** to, being pleased or displeased with all may be reduced to that of choosing. (COHA, 1846, NF)

The lack of verb or noun phrase in this instance can be explained by the form of the example presented here: here *averse* is part of a list that lists different types of "act of the will", as demonstrated by the other verbs listed in (23). Interestingly, though, the preposition *to* is present in this list; *averse* is not listed alone with no preposition. From this we can deduce that at least from the point of view of the list-maker, the default preposition to occur with *averse* is *to*, and not *from*, as lists of words usually include only the most commonly used prepositions associated with any particular word. Also, the list-maker has apparently deemed that *averse* must be paired with *to*, as even in a list the adjective is not left entirely without a preposition.

Indeed, with nonsentential complements, *averse* occurs with the prepositions *to* or *from*, or with no preposition at all, as is the case with the zero complement. In fact, no other prepositions occur in the COHA with *averse* in this timespan (the aforementioned unique instance of *of* preposition notwithstanding). Of these two prepositions, *to* is by far the more common, with *from* occurring only marginally (*from* occurs 14 times, as opposed to *to*, which occurs 159 times in this set of data).

### **Sentential Complements, 1820-1849**

Compared to nonsentential complements, sentential complements occur more rarely with *averse* between 1820 and 1849. In total, all the sentential complements found in this timespan are 24.3 per cent of all complement types found. Thus, compared to nonsentential complements, sentential complements are in the minority.

The most common sentential complement type is *to* + *-ing*, that is, the preposition *to* followed by a verb in its *-ing* form. 13.1 per cent of the occurrences found in the data are of this type, with 33 occurrences in the data.

(24) The rich are with good reason **averse** to helping the poor,... (COHA, 1829, MAG)

The *to* + *-ing* complements occur in the active voice in the majority of cases, as is the case in (24), and the 33 occurrences of this complement type had only two instances of the passive, both cases presented in (25) and (26).

(25) ...renders us uniformly **averse** to being troubled with other people's affairs... (COHA, 1835, FIC)

(26) Men are not **averse** to being hoodwinked (COHA, 1836, FIC)

Both passives appear with *be* as the auxiliary verb. No other auxiliary verbs occur in the passive in this part of the corpus.

The *to* + infinitive complement (that is, the infinitive form of the verb in the complement) was the second most common sentential complement found. It occurred 18 times in the data, which is 7.2 per cent of the total.

Also with the *to* + infinitive complement type, the passive voice is relatively rare. There is only one instance out of 18 occurrences of the verb being passivized, shown here in (27).

(27) he had never lacked advisers, nor shown himself **averse** to be guided by their judgment. (COHA, 1837, FIC)

In fact, the passive voice is rare in sentential complements overall in this dataset, with only five occurrences during the timespan analyzed in this section.

There are no detectable differences in terms of transitivity in the types of verbs that occur in either the *to* + *-ing* or the *to* + infinitive complement type. In both groups, most verbs are transitive (that is, they have one direct object), or more rarely ditransitive (that is, they have two objects). Intransitive verbs, which have no object, are rare, though not nonexistent:

(28) Sporus would certainly have stood an excellent chance for being elected a congressman, and probably a governor, for from a natural taciturnity he was much **averse** to speaking, which would have looked very wise and sapient (COHA, 1827, FIC)

In (28), the *-ing* form *to speaking* has no object, and is thus intransitive.

All of these types, intransitive, transitive and ditransitive occur with both *to* + *-ing* and *to* + infinitive pattern types.

As to the meaning of the verbs that occur with either pattern, again there are no

significant differences. The concept of purchasing or buying occurs several times, though usually not in the sense of purchasing a physical object. Instead, as in (29) and (30), the object purchased is more incorporeal and abstract.

(29) I believe I would be as **averse** as any man to purchase an advantage at the expense of my honor, (COHA, 1842, MAG)

(30) and am scarcely **averse** to buy my brother's reputation at the cost of my own. (COHA, 1827, FIC)

As was discussed in Section 2.1.7., the *-ing* form can denote habit or general statements, whereas the infinitive more often refers to particular events (Fanego 1996, 38). There is one instance of the *-ing* form occurring alone, where the meaning of the verb is clearly that of "habit":

(31) ...from a natural taciturnity he was much **averse** to speaking, which would have looked very wise and sapient...(COHA, 1827, FIC)

Here, *to speaking* refers to the general act of speaking, not to a particular event. Similar examples are not found with infinitive complements.

Interestingly, there is a clear division in terms of frequency between sentential complements introduced by the preposition *to* compared to those introduced by *from*. The same kind of division could be observed also with nonsentential complements. The sentential complements introduced with *to* outnumber those introduced with *from* significantly. This suggests that by 1820 the use of *to* dominated over the use of *from* as a preposition associated with *averse* in regards to both sentential and nonsentential complements.

As was mentioned in Section 3.2.1., the use of *to* was marked improper in prescriptive accounts of English language, as was the case in *A Dictionary of the English Language* in 1773. However in this dataset from the early 19th century *to* already appears as the norm. This contradiction suggests that a change has occurred some time after the publication of the *DEL* in 1773. This change is still observable in the data from 1820 to 1849, where both of the prepositions *to* and *from* occur with *averse*, but *to* is by and large more common.

The other *-ing* form complement in this set was *from + -ing*, which occurred in the data 5 times. An example of this pattern type is presented here in (32):

(32) These feelings rendered him **averse** from mixing unnecessarily with society (COHA, 1830, FIC)

This complement type is relatively rare, being only 2.0 per cent of the total. Here again,

as was the case with nonsentential complements, *to* is the more common preposition to follow *averse*.

The verbal constructions used with this complement type follow the same pattern as those encountered with *to + ing*: *averse* has most commonly something to do with intellectual labor, as in (33), and human interaction, as in (34)

(33) If he was **averse** from encountering severe and long continued intellectual labor on a given topic (COHA, 1828, NF)

(34) seeming **averse** from entering into conversation with the passengers. (COHA, 1840, FIC)

Indeed, the *from + ing* construction is similar to the *to + ing* construction in terms of the meanings and structure of the verbs associated with it. It seems that the choice of preposition here, as was the case with nonsentential complements discussed earlier in this section, is not influenced by the meaning of the clause, but is purely a stylistic choice or determined by convention. Interestingly, if the choice of preposition is not influenced by any sentence internal factors, but is purely because of convention, it is also more easily changeable. This could, in part, help explain why in the case of *averse* it would have been relatively simple for the default preposition to shift as the conventions shifted.

There were four occurrences of the *to + -ing* complement construction that incorporated a possessive pronoun between the preposition and the verb:

(35) the old gentleman was by no means **averse** to her marrying to please herself though it might be to the diminution of her fortune. (COHA, 1828, FIC)

This complement pattern occurred with different pronouns (namely *your*, *her*, *our*, *his*), all of which refer to humans.

There was also one instance of a similar structure, but with the preposition *from*:

(36) So much' was I **averse** from its being acted, that, the moment I' heard of the intention of the Managers, I applied for an' injunction; (COHA, 1824, NF)

This was the only possessive pronoun complement structure to occur with a nonhuman reference. The complement in (36) also includes a passive construction, which also occurs in one of the *to + possessive pronoun + -ing* complements, presented here in (37):

(37) Taylor was then, and has been all the while, **averse** to his being looked upon by his countrymen as a mere party man. (COHA, 1848, MAG)

Fanego (2007, 162) notes that "gerunds with an overt subject" such as the *to + possessive pronoun + -ing* complements are much rarer in English complementation than are subjectless gerunds.

This can also be seen from this data, as subjectless gerunds such as the *to* + *-ing* complements are more frequent than *to* + possessive pronoun + *-ing* complements.

Extractions in sentential complements are rare, and there is only one occurrence of this in this set of data:

(38) to allay whatever repugnance either of his parents may have felt to the project, and they became as ready to receive the child as they might have been originally **averse**. (COHA, 1845, FIC)

Here, the phrase *to receive the child* precedes *averse* and functions as a complement for *became ready*. Nevertheless, the sentence is interpretable only so that *to receive the child* is also a complement for *averse*. This is an example of a comparative extraction, which was discussed in Section 2.1.9. It is the sole occurrence of extraction with sentential complements in this part of the corpus. As there is only one occurrence, determining differences between infinitives and *-ing* forms is impossible in this case. Overall, extractions in this part of the corpus mainly occur with nonsentential complements, and these are of only one type, relative *to which* extractions.

Along with extractions, insertion – also described as structural discontinuity – was established as a factor influencing the choice of verb form in complements (Rohdenburg 2006, 148): the presence of insertions should favor the infinitive over the *-ing* form, especially if the insertion in question is long (Vosberg 2003b, 210-211; Rohdenburg 2006, 149-150). No insertions occur with *-ing* form complements in this part of the corpus. There are, however, two occurrences of insertions with infinitive complements, here presented in (39) and (40):

(39) I would be as **averse** as any man to purchase an advantage at the expense of my honor... (COHA, 1842, MAG)

(40) being **averse**, by any squeamish and over delicate airs, to generate a suspicion amongst the people with whom I mingled (COHA, 1843, NF)

In (39) the intervening material, *as any man*, is quite short, but (40) has a lengthier element: *by any squeamish and over delicate airs*. The number of occurrences is low, however, and any significant difference between gerundial and infinitive complements types cannot be determined to exist in this part of the corpus.

Regarding sentential complements of the adjective *averse*, in the case of the preposition *to*, both the *-ing* form and the infinitival complement construction were found in the data. The same is not true for *from*. There were no occurrence of *from* + infinitive. This may be because sentential *from*

complements are rare overall. However, another possible explanation for this may be because the English infinitive often requires the preposition *to* as an infinitive marker, and cannot occur alone in a complement.

#### 4.2.2. Analysis of *Averse* from 1870 to 1899

In this second section of the analysis I present and analyze the data from the subsection of the corpus covering the years from 1870 to 1899. The total number of words in this part of the *COHA* is approximately 61 million. This is significantly more than the 37 million in the last section of analysis, which will have to be taken into account when examining and comparing the instances of complementation found in these two, and subsequent, sections of analysis. For this reason, the tables in this and other sections of analysis include normalized frequency counts (abbreviated NF) per million words.

A total number of 266 tokens containing the word *averse* were returned by the query. Of these, 7 were irrelevant, because they either occurred in a different sense than is the focus of this thesis, such as (41), where the meaning is of *averse* is "reverse", not "disinclined"; or because they were part of a noun phrase, such as in (42), where *averse* is used as a part of a legal term.

(41) oft did flow **Averse** from Salem. (COHA, 1876, FIC)

(42) On page 13 it is shown that other parties are in **averse** possession. (COHA; 1896, NF)

There were also several cases of *averse* occurring attributively, but, as was the case in the previous section, these were mainly instances of poetry.

This leaves 259 relevant tokens, which are presented in the following table (Table 3). Again, the tokens are presented in the order of their frequency in this set of data.

Complement type	Number of instances	Percentage	NF (per million words)
<i>To</i> + NP	139	53.7	2.29
<i>To</i> + <i>-ing</i>	81	31.3	1.34
<i>To</i> + infinitive	14	5.4	0.23
<i>From</i> + NP	10	3.9	0.16
zero	5	1.9	0.08
<i>To</i> + NP(pos) + <i>-ing</i>	3	1.2	0.05
<i>To</i> + NP + <i>-ing</i>	2	0.8	0.03



<i>To which</i>	2	0.8	0.03
<i>From + -ing</i>	1	0.4	0.02
<i>From which</i>	1	0.4	0.02
<i>Of + NP</i>	1	0.4	0.02
<b>Total</b>	<b>259</b>	<b>100.2</b>	<b>4.27</b>

Table 3. Complements of *averse* from 1870 to 1899.

### Nonsentential Complements, 1870-1899

The most frequent nonsentential complement, and the most frequent complement overall, in this time period was *to* + NP, which occurred 139 times in the data, with a percentage of 53.7. *To* + NP was also the most frequent complement in the dataset from the years 1820-1849, as was analyzed in the previous section. There it occurred with a percentage of 63.3. Thus, in the data from 1870 to 1899, though still dominating the sample, the *to* + NP complement type has become less frequent than in the earlier dataset by 9.4 percentage points.

The normalized frequency of this complement type was 4.33 per million words in the previous section, and here it is 2.29. This can be explained by the overall frequency of *averse* being higher in the previous section. The overall number of words in this part of the corpus has nearly doubled in comparison to the part analyzed in the previous section, but the number of occurrences for *averse* has stayed nearly the same (here 259, and 251 in the previous section). The overall use of *averse* seems to have declined between these two time periods, from a total NF of 6.83 to that of 4.27.

The meanings of the nouns that occur with *to* + NP in this part of the corpus are very similar to the ones most commonly found in the 1820 to 1849 part of the corpus. From 1870 to 1899 the nouns and noun phrases that occur as *to* + NP complements of *averse* most commonly refer to intellectual or manual effort, the word *labor* occurring several times, as in (43); and also to change, violence, disagreement, and human interaction and company.

(43) We were gentlemen of leisure, we said, and decidedly **averse** to manual labor;  
(COHA, 1879, NF)

Some words that occur more frequently in this newer set include *controversy*, *labor*, *change*, and *flirtation*, an example of which is presented in (44).

(44) Separated from Zuleika, filled with a lover's despair, the ardent Viscount was not **averse** to a little flirtation, more or less innocent. (COHA, 1885, FIC)

Of these, *controversy* and *change* also occurred in the data from the years 1820 to 1849.

Of the other words mentioned in the first section, *plan* and *scheme* occur frequently again in this part of the corpus, examples of which are presented in (45) and (46).

(45) Kidd was somewhat **averse** to the plan, and seriously demurred, (COHA, 1871, FIC)

(46) The Count had been not only indifferent, but even **averse**, to the scheme, (COHA, 1875, FIC)

In (46) it is also notable that *averse* is coordinated with the adjective *indifferent*. In this case the form of the complement, and especially the choice of preposition of the complement, could also be partly influenced by the presence of this other adjective.

Again, the nouns following the adjective *averse* often refer to abstract concepts or ideas. Reference to physical objects is rare.

The *from* + NP is the second most common nonsentential pattern in this part of the corpus, just as it was in the part analyzed in the previous section. From 1870 to 1899 the *from* + NP type of complement occurs 10 times, which is 3.9 per cent of the overall number of occurrences. Here also the percentage is lower than that of its counterpart in the 1820-1849 part of the corpus, by 1.7 percentage points. Both of the major nonsentential patterns have thus seen a reduction in their use in comparison to the other patterns found in the dataset.

The types of nouns that occur with the *from* + NP pattern do not differ from those that occur with the *to* + NP pattern in any significant way. Though the sample of nouns in the *from* + NP pattern group is smaller than the sample of those that occurred with *to*, the nouns seem to refer to similar things, such as violence and human interaction. Again, the choice of preposition seems not to be influenced by the meaning of the complement noun phrase itself.

Apart from the two major types analyzed above, other nonsentential complement types occurred only marginally in this dataset. The most common of these was the zero complement type, with five occurrences. Here, as was the case with the zero complements that occurred in the 1820 to 1849 data, the seemingly missing complements are implicit. In all five cases, the omitted complements are understood to refer to something in the preceding context. In (47), for example, the zero complement refers to the two characters (*Hemstead* and *Lottie*) being alone:

(47) And Hemstead also, who had found their private tete-a-tetes so delightful and productive of good results, was equally unable to be alone with her. Not that Lottie was **averse**, but because she saw that lynx-eyed Bel was watching her; (COHA, 1875, FIC)

In the next example, (48), the zero complement refers to *to join* in the preceding clause,

(48) This learned, In anxiousness the banker yearned To join; nor Glaucon seemed **averse**.' (COHA, 1876, FIC)

and in (49), the context surrounding the zero complement supplies a referent: an affair.

(49) So you see whither affairs are tending? " " Oh, cousin! Am I a bat? " " I hope you are not **averse**. " " No, Cousin Sophy, I would do anything, and suffer much, to make papa happy. You know how I love Mara, though we disagree on many points; and if she and papa would be happier -- Oh! why can't I be happy, too? " and she gave way to a tempest of sobs.

Indeed, it seems that claiming that *averse* occurs without complement in these cases would be misleading. In all cases where there is no explicit complement, the missing complements' reference is still specific and determinable from the context. A more accurate description of this zero complement would then be *implicit complement*, or definite null complement, after Fillmore (1986, 96). The complement may not be explicitly presented, but it is also not the case that the space of the complement after *averse* is semantically empty.

The percentage for the zero complement type here is 1.9, which is lower compared with the 2.8 per cent this type of complement had in the 1820 to 1849 section of the corpus. However, as the number of occurrences of the complement type in both cases is low, this cannot be called a significant difference in frequency.

The *to which* complement has two occurrences in this part of the corpus, with a percentage of 0.8. Again, the *to which* complements are relative extractions:

(50) or to lighten the burthens of royalty by an amusement to which, it is known, Charles V. was not **averse**. (COHA, 1873, FIC)

(51) At the solicitation of the Surgeon-General he would make attempts at exercise by walking, to which he had grown **averse**;

In both (50) and (51) the *to which* complement has its antecedent directly preceding it, this antecedent being *an amusement* in (50) and *walking* in (51). In this part of the corpus, then, the *to which* pattern behaves in a similar way as it did in the 1820 to 1849 part of the corpus.

There is also one occurrence of *from which*, a complement type that did not occur in the 1820 to 1849 part of the corpus, where *which*-clauses occurred exclusively with the preposition *to*.

(52) Political liberty is, therefore, fostered by that very political restraint *from which*

the devotees of the idol liberty are so fearfully and blindly **averse**. (COHA, 1889, MAG)

Apart from the different preposition, the *from which* pattern is almost identical in its behavior to the *to which* pattern. In (52), as was the case in (50) and (51), the extracted *which* refers to an antecedent that precedes it directly, here *that very political restraint*. The preposition does not seem to influence the extraction in any other way. Still the extractions seem to favor the preposition *to*, as this is the only example of the extraction occurring with any other preposition.

There is also one example of topicalization found in this dataset, presented in (53), but no other extractions occur with nonsentential complements in 1870 to 1899:

(53) To this Mr. Irving was not **averse**, both from his extreme love of music, and his kindness toward the artists themselves; (COHA, 1884, FIC)

There is also one example of the complement occurring with the preposition *of*:

(54) All the rest of his friends, though, as he says, equally " **averse** of religious ceremonies, " waived their scruples for the time. (COHA, 1876, MAG)

The use of the preposition *of* in the complementation of *averse* was not observed in the corpus between 1820 and 1849, except for one instance of the *of that which* pattern. In the currently analyzed part, from 1870 to 1899, it only occurred once, as well. This use cannot then be considered an established complement pattern for *averse*. Other than the choice of preposition, the complement does not differ in any significant way from other NP complements encountered with *averse*.

One of the complements, here analyzed as a *from* + NP complement, was in actuality *therefrom*:

(55) In this, and the other phases of his life about town, I had no participation, being constitutionally as well as by training **averse** therefrom; (COHA, 1888, FIC)

It is analyzed as part of the *from* + NP pattern, as the same could also be written as *averse from there*.

### Sentential Complements, 1870-1899

Here, as was the case in section XX, the most common sentential complementation pattern is *to* + *ing*. However, compared to the years 1820 to 1849, in the years analyzed in this section, 1870 to 1899, the use of the *to* + *ing* complement has risen significantly. The pattern occurs 81 times in the 1870 to 1899 part of the corpus, and covers a 31.3 per cent share of the total number of occurrences. This is a

significantly larger percentage than that of 1820 to 1849, which was 13.1. The normalized frequency of this complement type has also risen, from 0.90 per million words in the previously analyzed part, to 1.34 per million words in this part. This has happened despite the overall frequency of *averse* lowering in this same timespan.

As was stated in Section 2.1.7. the rise of the *to* + *-ing* pattern is part of the wider change termed the Great Complement Shift, where the complementation of a number of predicates has been experiencing a change where *-ing* forms replace infinitives and finite clauses (Rohdenburg 2006, 143). From the growing frequency of the *to* + *-ing* pattern overall, and particularly in comparison with the *to* + infinitive pattern, this change can be observed to also influence the complementation of *averse*.

The *to* + infinitive is the second most common pattern in this part of the corpus, with 14 occurrences. The percentage for this complement type is 5.4 of all tokens found for *averse* in this subset of the data. This percentage is lower than the 7.2 per cent the *to* + infinitive pattern had in the section of 1820 to 1849. The normalized frequency has also lowered from 0.49 per million words in the previously analyzed part to 0.23 per million words in this part of the corpus.

Indeed, of these two sentential patterns, the *to* + *ing* pattern has become significantly more frequent, whereas the *to* + infinitive pattern has become less frequent. The difference between the percentages of occurrences between these two complement types has widened significantly, from 5.9 percentage points to 26.1 percentage points. Even though the *to* + *ing* pattern was already the more common of these two patterns in the 1820 to 1849 part of the corpus, the difference is more pronounced here. This seems to follow the pattern outlined in the Great Complement Shift theory, which was mentioned above.

Of all the patterns occurring in both the data from 1820 to 1849, and the data analyzed in this section, the *to* + *-ing* pattern is the only one that has higher normalized frequency in this dataset compared to its counterpart in the previous set. The normalized frequency for *averse* overall, and for all other patterns, has lowered, but the normalized frequency for *to* + *ing* has risen.

An examination of the types of verbs that occur with either of the pattern types reveal no significant semantical differences between the verb phrases. For example, as shown in (56) and (57), the verb *talk* appears both in the *to* + *-ing* form pattern and the *to* + infinitive pattern, in complements that are, apart from the form of the verb, very similar.

(56) even the communicative Alice being **averse** to talking of the black sheep of the family (COHA, 1873, FIC)

(57) when were ever two women **averse** to talk of a mane? (COHA, 1873, FIC)

With both patterns, the majority of verbs are (mono)transitive, with only a few instances of intransitive or ditransitive verbs.

Passive constructions were found with both pattern types, though they were slightly more frequent with the *to* + *-ing* pattern than the *to* + infinitive pattern (1 per 14 (7.1%) instances with *to* + infinitive and 7 per 81 (8.6%) instances with *to* + *-ing* ). Because in both cases the number of occurrences is low, the difference cannot be said to be significant. On so small a sample, it is not possible to claim any difference between the patterns regarding this matter.

Unlike with the passive, in this part of the corpus the *to* + infinitive pattern type exhibits more extractions than what the *to* + *-ing* pattern type exhibits. The *to* + *-ing* group, even though it is by far the larger group of these two, has only one occurrence of an extraction:

(58) the city should keep the control of its streets, any part of which it was so **averse** to surrendering; (COHA, 1890, MAG)

In the *to* + infinitive pattern, on the other hand, there are two extractions, one of which is presented in (59):

(59) and such articles of food and drink as I was particularly **averse** to be recommended for my diet. (COHA, 1986, FIC)

Here *such articles of food and drink* have been extracted from the complement, making this an example of topicalization. The gap can be found between *recommended* and *for my diet*. Without the extraction the sentence would be as follows:

(60) ....I was particularly averse to be recommended such articles of food and drink for my diet.

Again, with both pattern types, the number of occurrences is too small to signify any differences between the patterns.

Insertions occur five times in connection with the *to* + *-ing* complement type:

(61) The new generation of bishops is by no means so **averse** as were their predecessors to having their ears tickled by the grateful appellations of " lord " and " lordship, (COHA, 1887, MAG)

With *to* + infinitive, only one instance of insertion is found:

(62) and all seemed to be more **averse** than before to change there positions a particle; (COHA, 1888, FIC)

This is not surprising, as the number of occurrences for *to* + infinitive complements overall was lower than for *to* + *-ing* complements. With both verb forms, the insertions are quite short. Longer insertions might have influenced the form of the verb in the complement more, as was discussed in the previous section. As long insertions do not occur in this set of data, the role of insertions overall does not seem to be a significant factor influencing the form of the verb.

As was the case with the previous part of the corpus, the *to* + *-ing* form complement type also appears here with *-ing* forms that refer to general acts, or habits, as was discussed in the previous section. Here is an example of such an *-ing* form, where *writing* does not refer to a particular writing event, but to the general concept of it:

(63) She had written to the commanding officer, in fact, and begged particulars from him, as her son was so **averse** to writing (COHA, 1884, FIC)

However, these types of "general gerunds" are not the majority of *-ing* forms, but rather marginally used. Most *-ing* form verbs in this dataset refer to particular events, or have objects of a particular nature. In the few cases this general *-ing* form appears, however, its semantical difference to the infinitive could be seen as partly influencing the choice of verb form.

Of the other, less frequent, sentential complementation patterns the most frequent is the *to* + possessive pronoun + *-ing* pattern. This pattern occurs thrice in the data. The possessive pronouns that occur with the pattern in this subset of the data are *my*, *Scott's* and *his*.

(64) Americans who were **averse** to Scott's being honestly paid proved particularly solicitous that he should not be honestly criticised. (COHA, 1882, FIC)

In the case of example (64), the possessive noun in question is a name *Scott*. The complement here is otherwise identical in form with the other *to* + possessive + *-ing* complements, meaning that this type may not be restricted to pronouns, but could also include proper nouns. Of the three *to* + possessive pronoun + *-ing* patterns, the example in (64) is the only one in the passive voice.

In addition to the *to* + possessive pronoun + *-ing* pattern, another pattern includes a noun phrase between the adjective and the gerund:

(65) Richard would be **averse** to his future wife relinquishing any of her rights, (COHA, 1885, FIC)

This is a case of object control, as discussed in Section 2.1.4.: the PRO in this sentence is coreferential with *his future wife*, not *Richard*:

(66) Richard<sub>i</sub> would be averse to his future wife<sub>j</sub> [PRO<sub>j</sub>] relinquishing any of her rights...

Cases of subject control, where the PRO is coreferential with the subject of the matrix clause (in this case *Richard*), are more common with *averse*.

The *to* + NP + *-ing* type of complement occurs twice in the data, and one of its occurrences is in the passive voice.

There was also one instance of a *from* + *-ing* complement:

(67) For the court, guiding itself by the general principles of evidence -- the recognized and booked principles -- is **averse** from swerving at particular instances. (COHA, 1880, FIC)

In comparison to the part of the corpus analyzed in Section 4.2.1., which included data from the year 1820 to 1849, the part of the corpus analyzed in the current section exhibited some changes. The *to* + *-ing* pattern has increased in frequency in comparison to the other patterns, to such an extent that its normalized frequency has risen even though the overall normalized frequency of *averse* has fallen. Apart from the *to* + *-ing* pattern, the absolute number of occurrences for the complementation patterns that occur in both this section and the previous one have stayed very similar. As the overall frequency of use for *averse* has lowered, this means that also the frequency of use for these patterns other than the *to* + *-ing* pattern has lowered. The total percentage of NP complements has also lowered, but this can be accounted for by the rising number of *to* + *-ing* complements.

Interestingly, the two major patterns in this part of the corpus, the *to* + *-ing* and the *to* + NP, have a combined share of 85 per cent of the total number of complements. When compared with the previously analyzed part of the corpus in Section 4.2.1., it seems that the overall variation in complementation observable in that earlier part has narrowed. The two major patterns, *to* + NP and *to* + *-ing*, discussed in this section have a larger share of the total than previously, and the use of other patterns has become more marginalized.

#### 4.2.3. Analysis of *Averse* from 1920 to 1949

This third analyzed part of the corpus comprises of the years 1920 to 1949, and has a size of 74 million words. Within this timespan, the search returned 142 tokens, all of which were relevant.

Complement type	Number of instances	Percentage	NF (per million words)
To + -ing	61	43.0	0.82



To + NP	59	41.5	0.80
From + NP	5	3.5	0.07
From + -ing	4	2.8	0.05
zero	4	2.8	0.05
To + NP(pos) + -ing	3	2.1	0.04
To + infinitive	3	2.1	0.04
To + NP + -ing	1	0.7	0.01
To which	1	0.7	0.01
To + unclear	1	0.7	0.01
<b>Total</b>	<b>142</b>	<b>99.9</b>	<b>1.91</b>

Table 4. Complements of *averse* from 1920 to 1949.

As can be seen from Table 4, the overall normalized frequency of *averse* is 1.91 in this part of the corpus. The normalized frequency has then fallen by 2.36 occurrence per million words in comparison with the normalized frequency that *averse* had in the years 1870 to 1899.

### Nonsentential Complements, 1920-1949

The most common nonsentential complement type in this part of the corpus is *to* + NP. There are 59 instances of this complement type, which is 41.5 per cent of the overall number of occurrences of the adjective. The percentage for this complement type was 53.7 in the part 1870 to 1899 part of the corpus, which means that there has been 12.2 percentage point decline in the use of this complement type in relation to the other complement types present in the corpus. An example of this complement type is presented below:

(68) he was not **averse** to footpaths and highways, and the rustic, half-domesticated nature of rural England. (COHA, 1921, FIC)

As was the case in the part of the corpus analyzed in the previous section, the *to* + NP complement is the most common nonsentential complement type. However, it is no longer the most common complement type overall, as the sentential *to* + -ing complement type has passed it in frequency in this part of the corpus. The decline of the *to* + NP and the rise of the *to* + -ing were both visible already in the previous section, and here they have continued in such a way that there has been a change in the lead position between the two complement types.

The *to* + NP complement appears here with a normalized frequency of 0.80 instances per million words, which is lower than the normalized frequency for the same complement type in the 1870

to 1899 part of the corpus, by 1.49 instances by million words. However, this decline is to be expected, as the overall frequency of *averse* has also fallen.

As was the case with the *to* + NP complements in the previous parts of this analysis, in this section some instances of such concepts as plans, effort and change occurring in the noun phrases of the complements are found. However, the noun phrases between complements of *from* + NP and *to* + NP are not compared in this section, as the number of occurrences for *from* + NP is very low compared to the *to* + NP complements.

Indeed, in comparison to the *to* + NP complement type, the usage of other nonsentential complement types is marginal, this including the *from* + NP type.

The second most common nonsentential complement type is still the *from* + NP type, but the number of its occurrences is small: the complement type occurs five times in this dataset, which is 3.5 per cent of the total number of complements. The difference of percentage points when compared with the *to* + NP type is 38 percentage points. In the case of nonsentential complements, at least, *to* remains the dominating preposition, with the use of *from* being marginal in comparison. In (69), there is an example of a *from* + NP complement from the year 1922:

(69) the German people are not participating, but are not **averse** from an American loan besides. (COHA, 1922, NEWS)

However, when compared with the occurrences of this complement type in the 1870 to 1899 part of the corpus, it can be seen that the use of *from* + NP has not significantly declined in relation to other complement types used contemporarily: the percentage of use for *from* + NP was 3.9 in the previous section, and it is 3.5 here. There is thus only a 0.4 percentage point difference. This difference is small compared to the changes observable in the percentages of other complements in this and the previous part of the corpus.

There are four zero complements, which accounts for 2.8 per cent of the total number of complements. In the part of the corpus analyzed in the previous section, zeroes occurred with a percentage of 1.9. Again, as was the case with *from* + NP, the difference between the years 1870-1899 and the years 1920-1949 is less than one percentage point. As the overall number of tokens with both zeroes and *from* + NP cases is low, the difference in percentages with either pattern does not necessarily imply change, but could be purely coincidental.

Two examples of zero complements are presented below:

(70) What's the matter with Margaret Flinn, and the town waiting these ten years for

you to take her? (Bridget looks as disgusted as she dares, and goes out noisily with the tray.) If I'm any judge at all of womankind -- Margaret would not be **averse**. (COHA, 1925, FIC)

(71) There could hardly be objection if the foreign nations made the same reservations as the United States as to their future discretion to change their Vvalue. There is some indication from Londost, the British would-not-be-entirety **averse** (COHA, 1934, NEWS)

Here, as was the case in the parts of the corpus analyzed in Sections 4.2.1. and 4.2.2., the omitted complement of *averse* has a referent in the preceding context. In (70) the complement of *averse* refers to *you to take her*, and in (71) the omitted complement refers to *if the foreign nations made the same reservations as the United States*. As stated before, the omitted complement, though not explicitly stated, is not semantically empty.

The *to which* pattern occurs once in this part of the corpus:

(72) the young man pretending to lean heavily on the girl, and finding much occasion to hold her hands, a performance to which she seemed to be not at all **averse**. (COHA, 1922, FIC)

Here the *which* refers to *a performance*, which immediately precedes it. As was the case with the other occurrences of this type in the part of the corpus already analyzed, this is an instance of relative extraction. No other extractions are found with nonsentential complements in this part of the corpus.

There is also one instance where part of the complement is omitted from the text:

(73) Lincoln liked a joke, and had a gift for making one; split rails; was very strong; said h -- l and d -- n; so far as we can guess, was not **averse** to --; was pungent in his speech, (COHA, 1941, FIC)

As the complement cannot be determined from the example, and the omitting is on an orthographic level, this instance is not discussed further.

### Sentential Complements, 1920-1949

Unlike in the previous parts of the corpus analyzed, in this part the most common complement type overall was not nonsentential, but the sentential *to* + *-ing* pattern. Even though it was the most common complement type only by two occurrences, overall this still indicates a considerable shift in what kind of complement patterns *averse* receives. The *to* + *-ing* pattern occurred in this part of the corpus a total of 61 times, which is a 43.0 per cent share of the total number of occurrences for *averse* in this section.

Compared with the 1870 to 1899 part of the corpus analyzed in the previous section, the part of the corpus analyzed in the current section occurs with a larger percentage share. In the part analyzed in the previous section, *to + -ing* complements occurred in 31.3 per cent of the complements found with *averse*, meaning that there is a 11.7 percentage point difference in favor of the part of the corpus currently under analysis. Thus, the *to + -ing* pattern has become more common in comparison to the other complements that occur with *averse*.

Two extractions are found with the *to + -ing* pattern:

(74) I can see that there are certain matters pertaining to Casa Grande which she is not **averse** to easing her mind of. (COHA, 1920, FIC)

(75) Berlin approved these accords, and an agreement between France and Germany as to their renewal might be something Poincare would not be at all **averse** to having. (COHA, 1923, NEWS)

In (74) there is a relative extraction with *which*. The gap can be found after *easing her mind of*, and once again the *which* refers to an antecedent that immediately precedes it: *certain matters pertaining to Casa Grande*. In (75) the noun phrase *an agreement* has been extracted from after *to having* in the complement. This is then an example of topicalization.

In this section, the *to + -ing* pattern is not contrasted with the *to + infinitive* pattern, as the latter has only three occurrences, and the sample is thus too small for any meaningful comparison. There are three insertions found with the *to + -ing* pattern, but all of them are quite short, not exceeding six words, and cannot be seen as influencing the choice of the verb form in the complement.

The second most common sentential pattern type in this part of the corpus is the *from + -ing* pattern, which occurred four times, and had a percentage of 2.8. In comparison to the 1870 to 1899 part of the corpus, the percentage has grown, from 0.4 per cent. However, in both cases the absolute number of instances is quite small: here four, and in the 1870 to 1899 part of the corpus, one. The pattern does not thus exhibit any dramatic change between these two parts of the corpus. Notable is, however, that the *from + -ing* pattern is more frequent in this part of the corpus than the *to + infinitive* pattern; an occurrence that is discussed further down.

The other patterns in the sentential complementation group include the *to + possessive pronoun + -ing* pattern, which was also observed in the part of the corpus analyzed earlier. This pattern had three occurrences in the current part of the corpus, and a percentage of 2.1. As was the case with *from + -ing*, there is no significant difference in frequency observable with this complement type

between this part of the corpus and the previous one.

The *to* + infinitive pattern also occurred thrice, which is 2.1 per cent of the total number of occurrences. Compared to the 1870 to 1899 part of the corpus, this pattern has seen considerable decline, as it was the second most common sentential pattern in the 1870 to 1899 part of the corpus.

As was noted before, both of the *-ing* form patterns, *to* + *-ing* and *from* + *-ing* occur more frequently in this part of the corpus than the *to* + infinitive pattern does. In the case of the *from* + *-ing* pattern, the change seems to be more due to the decline of the infinitival pattern than due to the rise of the *-ing* form pattern. With the *to* + *-ing* form pattern however, the difference in frequencies between these two sentential *to* complement patterns seems to be influenced by both the decline of the infinitival pattern and the growing frequency of the gerund pattern.

There was also one occurrence of a *to* + NP + *-ing* pattern; a complement pattern that also occurred in the 1870 to 1899 part of the corpus. In this case, the complement is in the passive voice:

(76) And it is also not **averse** to old industries being expanded or to large new industries being established (COHA, 1945, MAG)

#### 4.2.4. Analysis of *Averse* from 1970 to 1999

In this fourth and final section the complementation of *averse* is analyzed as it occurs in the COHA between 1970 and 1999. This part of the corpus comprises of approximately 77 million words, which makes it the most sizable subsection of the corpus analyzed in this thesis. The search for *averse* returned 77 tokens, 11 of which were irrelevant.

Three of these irrelevant tokens were cases where the word *averse* was used as a name:

(77) Somehow it did not matter. Goddamn him! thought **averse**.' (COHA, 1984, FIC)

These are apparently all from the same book, a fictional work by Robert Ludlum.

All the rest of the irrelevant tokens were occurrences of the word combination *risk*

*averse*:

(78) In addition, we can assume that society as a whole should be risk **averse** in this situation (COHA, 1999, MAG)

Interestingly, though not relevant to complementation, this word combination *risk averse* only occurs in the 1990's in the corpus, and it seems to be a novel term for the end of the 20th century. Apparently, the word was coined by John von Neumann and Oskar Morgenstern in 1944 in their book *Theory of Games and Economic Behaviour*. The term is commonly associated with a field of study

known as game theory, which gained large-scale popularity only in the 1980's and 1990's. The rise of this relatively new field of study, and the terminology associated with it, could explain the sharply rising frequency of use for this word combination.

After these irrelevant tokens are subtracted from the analysis, 66 relevant tokens remain. These are presented in the following table (Table 5), again in the order of their relative frequency in the data.

Type of complement	Number of instances	Percentage	NF (per million words)
<i>To</i> + NP	36	54.5	0.47
<i>To</i> + <i>-ing</i>	26	39.4	0.34
<i>To</i> + NP + <i>-ing</i>	2	3.0	0.03
<i>From</i> + <i>-ing</i>	1	1.5	0.01
zero	1	1.5	0.01
<b>Total</b>	<b>66</b>	<b>99.9</b>	<b>0.86</b>

Table 5. Complementation of *averse* from 1970 to 1999.

As can be seen from the table, the total number of different complement types is lower in this part of the corpus than it was in the parts investigated in the earlier sections of this analysis. There are only five different complementation types, of which three are patterns that occur in this part of the corpus less than three times. The overall normalized frequency of *averse* itself is also lower than it was in the previous parts: in the 1920 to 1949 part of the corpus, the normalized frequency for *averse* was 1.91 per million words, and here it is 0.86. The use of the adjective seems to have declined significantly since the 19th century.

### Nonsentential complements, 1970-1999

Again, as was the case in the previous section, there is only one major pattern for the nonsentential complement group: *to* + NP. The *to* + NP complement type occurs 36 times out of the total of 66 relevant occurrences of *averse*. This is 54.5 per cent of the total. In the 1920 to 1949 part of the corpus, this pattern occurred with a percentage of 41.5, and it was not the most common complement type overall. Here the *to* + NP pattern seems to have regained its position as the most common complementation pattern to occur with *averse*. Of the nonsentential patterns it is the only one with an explicitly stated complement to occur in this part of the corpus.

The *from* + NP complement pattern, which has occurred in all the other parts analyzed in

this thesis, is absent from this part of the corpus. Overall, complements with the preposition *from* are almost nonexistent in this part of the corpus, as there is only one occurrence of such a complement, *from* + *-ing*, which will be discussed further below along with other sentential complements. However, the variation between *to* and *from* in complements for *averse* has thus lessened, with *to* emerging as the most widely accepted preposition across the board.

The only other nonsentential pattern in this part of the corpus was the zero complement, which occurred once. This occurrence is presented here:

(79) " Who now shall withstand us? " And they clanged their arms, calling on Philip to obey the god. He was not **averse**. " (COHA, 1976, FIC)

As was the case in the other parts of the corpus, the zero complement here has a specific referent in the context: *to obey the god*.

### **Sentential complements, 1970-1999**

The most common sentential complement type in this part is the *to* + *-ing* pattern. It occurs 26 times, and has a percentage of 39.4. Compared to the 1870 to 1899 part of the corpus, its frequency in comparison to other patterns has lowered, from 43.0 per cent. This can be explained by the *to* + NP being more frequent in the part of the corpus analyzed in this section. The *to* + *-ing* pattern is still the dominant sentential pattern, and all other sentential patterns are used only marginally.

The second most common sentential complementation pattern is *to* + NP + *-ing*, which appears twice. As stated before, this use is marginal, and overall the variation in sentential complementation with *averse* has narrowed from several different patterns to one major pattern appearing almost exclusively.

The *from* + *-ing* pattern is observed to occur once in this part of the corpus.

(80) I do not desire to minimize the appeal of the Donatello relief, though I am not **averse** from anticipating its photographic advantage. (COHA, 1972, FIC)

Interestingly, and as discussed before, this is the only occurrence of the preposition *from* in the 1970 to 1999 subsection in the COHA, as there were no nonsentential patterns with the preposition. The use of the preposition *from* appears to be marginal in modern use, but not nonexistent.

Also, a major difference in this part of the corpus in comparison to the parts analyzed in Sections 4.2.1., 4.2.2. and 4.2.3. is the absence of infinitive complements. All the sentential complements here are gerundial, and the *to* + infinitive pattern seems to have disappeared completely.

Also, the marginalization of all other but the two major patterns observed in Section 4.2.3. is more pronounced here: the two major patterns, *to* + NP and *to* + *-ing* have a combined percentage of 93.9.

Interestingly, the *to* + infinitive pattern does not occur in this part of the corpus. It has been stated before that there has been recorded change in English complementation, where the *-ing* form complements have been gaining ground from *to* + infinitive complements. This seems to have happened with *averse*, as the *-ing* form complements are the only sentential complement patterns to occur in this part of the corpus.

### 4.3. Summary of Findings and Discussion

From the data analyzed in this thesis, it can be observed that several changes have taken place in the complementation of *averse*. In the case of sentential complementation, the *-ing* form complements have a larger percentage of occurrences at the end of the 20th century, than during the first half of the 19th century. Figure 1 presents the changes in percentage observable in infinitive and *-ing* form complements from the year 1820 to the year 1999.

The percentages of *-ing* forms and infinitives from 1820 to 1999 with *averse*

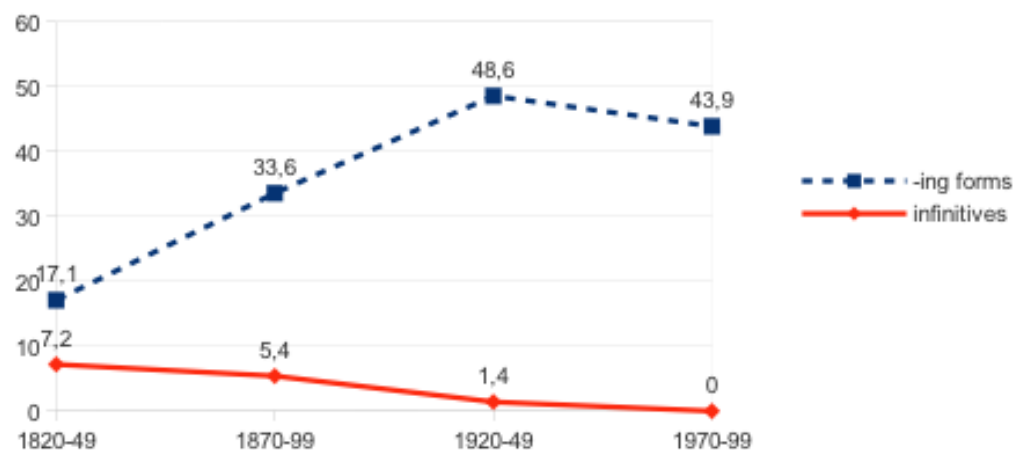


Figure 1. Percentages of *-ing* form and infinitive complements with *averse* 1820-1999.

As can be seen from Figure 1, the use of complement types that have an *-ing* form verb has grown from 17.1 per cent of all complements in 1820-49 to 48.6 per cent in the years 1920-49, after which its use falls by 4.7 percentage points to 43.9 per cent of all complements used with *averse* in



1970 to 1999.

The use of complement types with an infinitive verb, on the other hand, is falling steadily, starting with a percentage of 7.2 in 1820-49 and disappearing altogether by the end of the 20th century. The *-ing* form gains a larger share of sentential complements during the analyzed decades, mainly at the expense of the infinitive. The infinitive complement thus changes from a relatively significant complement pattern to a nonexistent one.

The rising of the *-ing* form can be seen as a part of a more general change in complementation called the Great Complement Shift (Rohdenburg 2006, 143), which has been recorded in a number of studies, occurring with predicative verbs and adjectives alike.

One possible reason for this change is the increasingly verbal status of the *-ing* form: since its origin as a nominal construction, the *-ing* form has transformed into a verbal construction. The more readily this verbal construction is accepted in language, the more readily it is also accepted as a complement. This change, as was discussed in Section 2.1.7., begun already before the 19th century, but has progressed slowly, and its last vestiges can be observed in the data. The replacement of infinitives by *-ing* forms seems to reach completion by the end of the 20th century, when the *-ing* form is the only sentential complement pattern that occurs with *averse*.

Overall, the number of different complement types has declined during the time period studied in this thesis, and two major patterns have emerged as dominant: *to* + NP and *to* + *-ing*, one nonsentential and one sentential. The other patterns, though they still occur sporadically, are increasingly marginal. Because the nonsentential and sentential pattern groups have slightly different functions, in as much as they are not interchangeable, they did not share the same type of rivalry that existed between the *to* + infinitive pattern and the *to* + *-ing* pattern. The two sentential patterns would be interchangeable in a number of contexts, which also helps explain the replacement of one by the other.

The nonsentential complementation of *averse* has also changed. The most notable change in this is the choice of preposition. At the beginning of this analysis, in 1820-49, both *to* and *from* occur relatively frequently (though *to* is more frequent), but at the closing of the 20th century, the *from* complement variants are almost nonexistent. There is only one complement with *from* in the last section. It seems that here also the variation in complementation of *averse* has narrowed, and the number of acceptable complement patterns has been reduced to include only one candidate for preposition.

As the use of the adjective itself declines during the whole period under analysis, the variation in its complementation also declines. This decline in overall use may be one factor explaining the narrowing variation of *averse*: as the frequency of use for the adjective declines, so does the variation. It might be because the word and its related constructions are less known to people, that the variation within them is lesser.

Another possible explanation is the Great Complement Shift, as was discussed earlier. The infinitive has been replaced by the *-ing* form in a number of English predicates, and it seems that this trend affects *averse* as well.

One pattern of complementation that occurs in all analyzed sections of the corpus, is the zero or omitted complement. In these, the space usually occupied by the complement phrase is empty. This was deemed ungrammatical by Quirk et al (1985, 1221) as they categorized *averse* as belonging to a group of adjectives for which complementation is obligatory. However, these complements appear in the corpus data. This can be explained by implicit complements, or definite null complements, as discussed by Fillmore (1986, 96-98). In these, the omitted complement must have a referent in the preceding context. Thus, the space from where the complement seems to be omitted, is not semantically empty. All the zero complements found in the data are of this type: all of them need a specific referent for the sentence to make sense, and all of their referents are interpretable from their surrounding context.

## 5. Conclusion

This is a study of complementation, with *averse* as the predicate specifically under examination. As was stated in Section 2.1.1., in this thesis adjectives as well as verbs are considered able to function as predicates, as they share a number of similarities in their behavior (Cook 1998,8). *Is averse*, thus, is treated here as a predicate. It is also discovered within this thesis that *averse* is, to be precise, a control predicate, not a raising predicate. This affects the kind of grammatical roles *averse* can fulfill, and also its complementation.

It is the predicate, which in the case of this study is *is averse*, that determines how many elements need to occur in a sentence for it to be grammatically acceptable (Herbst et al. 2004, xxiv). These elements are known as complements (ibid.). Complements, then, are arguments of predicates.

Study of complementation has discovered that in the last few centuries a change has taken place in the complementation of many English verbs: in what is known as The Great Complement Shift, the *-ing* form has strongly emerged as a verb and a possible sentential complement, which has caused, in Vosberg's words, "a re-arrangement of the entire system of verb complementation" (Vosberg 2003b, 197).

The aim of this study is to find out what kind of complements the predicate *averse* takes by performing a quantitative analysis on corpus data gathered from *The Corpus of Historical American English*. By following the evolution of complementation used with *averse* from the year 1820 to the year 1999, this study also maps out diachronic change that has occurred regarding the complementation of *averse* from the start of the 19th century to the end of the 20th.

For a corpus study, the recall and precision appear to be uncharacteristically high in this study. This is because as an adjective predicate, *averse* only occurs in one possible spelling: "averse". The search string is then very simple, and other than technical errors obstructing the spelling of words already in the corpus data, all relevant tokens should be receivable by this single search string, causing the recall of this study to be notably high. Of all tokens found by the search string, only a few dozen of the 742 were deemed irrelevant to the study question, which means that this study also has good precision. To make different sections of the analyzed data comparable, the frequencies were normalized per million words.

Theories regarding argumentation, complementation and corpus study are presented in Chapter 2. In Chapter 3 I focused on *averse*: how the adjective and its uses have been depicted in

grammars and dictionaries.

In short, this study finds that 1) use of the adjective *averse* has declined overall from the year 1820 to 1999; 2) the number of possible complements to accompany *averse* has likewise declined in this time period; 3) use of the *to* + infinitive pattern has been completely replaced by the *to* + *-ing* form pattern; 4) use of the *to* preposition in regards to *averse* has risen, while the *from* preposition has all but disappeared; 5) two major complementation patterns, the sentential *to* + *-ing* and the nonsentential *to* + noun phrase, have stabilized as the most common complement types to follow *averse*, while all others have marginalized; and 6) zero complements, although described as impossible with *averse* by Quirk et al. (1985, 1221), do occur from time to time, and are explainable as occurrences where the complement following *averse* is not so much missing as left implicit, but discernable from the wider context surrounding the zero complement.

According to the data analyzed, the historical re-arrangement of verb complementation known as The Great Complement Shift can be observed affecting the complementation of the adjective *averse*: the *to* + *ing* form is the complement type that experiences the most notable rise in frequency of use between 1820 and 1999, at the expense of the other previously prominent sentential complementation pattern, the *to* + infinitive.

This is a study of American English, and further study with *averse* as its focus could be conducted in British English. Also, a comparative study between the two varieties (or between some other varieties, as there are more than two Englishes) could bring to light new variation in the complementation of this predicate. Concerning British English, both diachronic and synchronic studies could provide an interesting contrast to American English, especially as concerns the presence or absence of what Vosberg (2003a, 310) termed “colonial lag” - the advancement of change in British English in comparison to American English. The complementation of *averse* could also be studied by using data from corpora that include texts from earlier than the 19th century, as the change observed in this study seems to already be underway during the 1820-1849 part of the corpus – the earliest data studied in this thesis.

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